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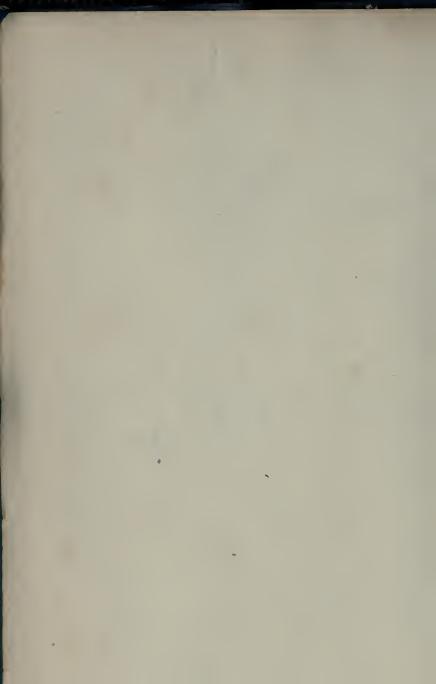
The Ontario Institute

for Studies in Education

Toronto, Canada







HIGHER SCHOOLS AND UNIVERSITIES IN GERMANY





SECOND EDITION.

HIGHER SCHOOLS & UNIVERSITIES IN GERMANY

BY

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London

MACMILLAN AND CO.

"The thing is not, to let the schools and universiti in a drowsy and impotent routine; the thing is, to culture of the nation ever higher and higher by their m WILHELM VON HUMB

PREFACE.

"It is expedient for the satisfactory resolution of those educational questions, which are at length beginning seriously to occupy us, both that we should attend to the experience of the Continent, and that we should know precisely what it is which this experience says."

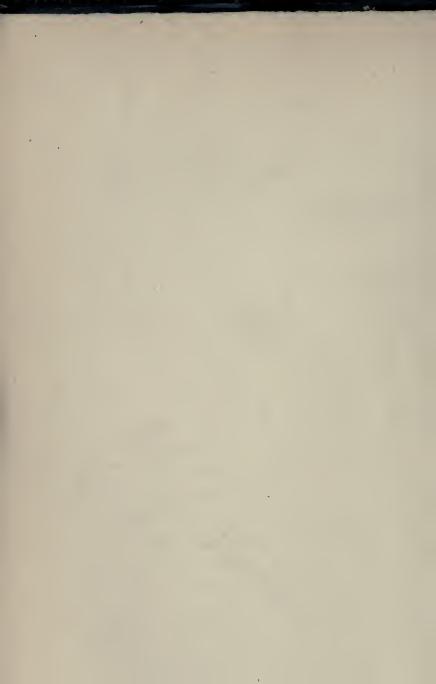
So I said in the preface to the first edition of this work, published in 1868. The history of education on the Continent is now regarded in this country with a great and increasing interest, and I republish, therefore, my account of the schools and universities of Germany. I have abstained from attempting to bring the account down to the present time, either by the addition of chapters at the end, or by the insertion of notes and corrections in the body of the work. A book which, in its

original state, was a whole, comes inevitably, later additions and alterations of this kind, to whole no longer. Nor are they requisite for object of tracing the main lines of the developm and character of intermediate and higher educa in Germany. These main lines were already the in 1865; they have not come into being between that time and this. It is not probable that t will be changed. There is, indeed, an increa demand everywhere for modern or real studies they are called, and the school-course everyw is being modified in compliance with this dem But the need of those studies had been recogn by the organisers of German education be there arose a popular cry for them; and now the popular cry has arisen, it is in Germany this cry is least likely, perhaps, to be suffered destroy the true balance of education.

The cost of things has risen greatly in Germ since 1865, and the school-fees mentioned in following account of German Schools are no am told, in many cases the double of what they were. But the cheapness of good education in German schools for the middle and upper class.

still remains, relatively to its cost with us in England, as noteworthy now as it was then,—as noteworthy for us as the organisation of those schools, and as the universality of their provision.

February 1, 1882.



PREFACE TO THE FIRST EDITION

(1868).

I was in 1865 charged by the Schools Enquiry Commissioners with the task of investigating the system of education for the middle and upper classes which prevails in France, Italy, Germany, and Switzerland. In the discharge of this task I was on the Continent nearly seven months, and during that time I visited the four countries named, and made as careful a study as I could of the matters to which the Commissioners had directed my attention.

It is expedient for the satisfactory resolution of those educational questions, which are at length beginning seriously to occupy us, both that we should attend to the experience of the Continent, and that we should know precisely what it is which this experience says. As to compule ducation, denominational education, secular cation, the Continental precedents are to be stude and they are to be studied for the sake of se what they really mean, and not merely for sake of furnishing ourselves with help from the for some thesis which we uphold.

Most English Liberals seem persuaded that elementary schools should be undenominational, their teaching secular; and that with a systematic public elementary schools it cannot well be of wise. Let us clearly understand, however, that the Continent generally, everywhere except in land, the public elementary school is denominated, and its teaching religious as well as seen than again, as to compulsory education.

Then, again, as to compulsory education. may be broadly said, that in all the civilised St of Continental Europe education is compul except in France and Holland. The opponent compulsory education quote Mr. Pattison, to s that in North Germany "compulsory attendation is a matter which produces comparatively I practical result." They quote a report of min

show that in French Switzerland "the making popular education compulsory by law has not added one iota to its prosperity." But yet the example of the Continent proves, and nothing which Mr. Pattison or I have said disproves, that in general, where popular education is most prosperous, there it is also compulsory. The compulsoriness is, in general, found to go along with the prosperity, though it cannot be said to cause it; but the same high value among a people for education which leads to its prospering among them, leads also in general to its being made compulsory. Where the value for it is not ardent enough to make it, as it is in Prussia and Zurich, compulsory, it is not, for the most part, ardent enough to give it the prosperity it has in Prussia and Zurich. After seeing the schools of North Germany and of German Switzerland, I am strongly of this opinion. It is the same thing as in religion. The vitality of a man's religion does not lie in his imposing on himself certain absolute rules as to conduct. But in general, if his religion is vital, it will make him lay on himself absolute rules as to conduct. Above all, it will make a newlyawakened sinner do this; and England, in spit what patriotic people say, I must take leave regard, in educational matters, as a newly-awake sinner.

Therefore I do not think the example of Pru and Switzerland will serve to show that compositions of education is an insignificant thing; I believe that if ever our zeal for the cause mornigh enough in England to make our popeducation "bear favourable comparison," except the imagination of popular speakers, with popular education of Prussia and Switzerland, same zeal will also make it compulsory.

But the English friends of compulsory education their turn, will do well to inform themse how far on the Continent compulsory educate extends, and the conditions under which alone working classes, if they respect themselves, submit to its application. In the view of English friends of compulsory education, the cated and intelligent middle and upper clasmongst us are to confer the boon of compuled education upon the ignorant lower class, where the cated and intelligent middle and upper class.

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instruction is obligatory for lower, middle, and upper class alike. I doubt whether our educated and intelligent classes are at all prepared for this. I have an acquaintance in easy circumstances, of distinguished connexions, living in a fashionable part of London, who, like many other people, deals rather easily with his son's schooling. Sometimes the boy is at school, then for months together he is away from school, and left to run idle at home. He is not in the least an invalid, but it pleases his father and mother to bring him up in this manner. Now I imagine no English friends of compulsory education dream of dealing with such a defaulter as this; and certainly his father, who perhaps is himself a friend of compulsory education for the working classes, would be astounded to find his education of his own son interfered with. But if my worthy acquaintance lived in Switzerland or Germany, he would be dealt with as follows. I speak with the school-law of Canton Neufchâtel immediately under my eyes, but the regulations on this matter are substantially the same in all the states of Germany and of German Switzerland. The Municipal Education Committee of the district where my acquaintance lived would addre summons to him, informing him that a compar of the school-rolls of their district with the m cipal list of children of school-age showed his not to be at school; and requiring him, in co quence, to appear before the Municipal Commi at a place and time named, and there to say them either that his son did attend some pr school, or that, if privately taught, he was tar by duly trained and certificated teachers. On back of the summons my acquaintance would printed the penal articles of the school-law tencing him to a fine if he failed to satisfy Municipal Committee; and, if he failed to pay fine, or was found a second time offending, to prisonment. In some Continental States he w be liable, in case of repeated infraction of school-law, to be deprived of his parental rig and to have the care of his son transferred guardians named by the State. It is in terrible to think of the consternation and wrat our educated and intelligent classes under a cipline like this; and I should not like to be them most emphatically,—and if they study the experience of the Continent they will convince themselves of the truth of what I say,—that only on these conditions of its equal and universal application is any final law of compulsory education possible.

Of the education of the middle and upper classes, however, I have no need to speak at length here, for the following work is devoted to that subject. Secondary and higher education is not, like popular education, a subject which very keenly interests at present our educated and intelligent classes. It is their own education; and with their own education they are, it seems, tolerably well satisfied. Yet I hope that here again these classes,—above all I hope that the great middle class, which has much the widest and the gravest interests concerned in the matter, —will not refuse their attention to the experience afforded by the Continent. Before concluding that they can have nothing to learn from it, let them at any rate know and weigh it.

To three points particularly let me invite their consideration. In the first place, let them con-

sider in its length and breadth the fact tha the Continent the middle class in general ma said to be brought up on the first plane, while England it is brought up on the second plane. the public higher schools of Prussia or Fra some 65,000 of the youth of the middle and up classes are brought up; in the public his schools of England,—even when we reckon as a many institutions which would not be entitled such a rank on the Continent,—only some 15, Has this state of things no bad effect upon If the training of our working class, as of pared with the working classes elsewhere, insp apprehension, has the training of their employ as compared with employers elsewhere, no ma of apprehension for us? There are people say that the labour questions which embar us owe their gravity and danger at least as m to the inadequacy of our middle class for dea with such questions, as to the inadequacy of working class. "English employers of laboration these people say, "are just now full of compla of the ignorance and unreasonableness of the things, for its better instruction. It never occurs to them that their own bad instruction has much to do with the matter. Brought up in schools of inferior standing, they have no governing qualities, no aptitude, like that of the aristocratic class, for the ruling of men; brought up with hollow and unsound teaching, they have no science, no aptitude for finding their way out of a difficulty by thought and reason, and creating new relations between themselves and the working class when the old relations fail." I do not say that this is entirely so, but I say that the bearings of our education on the matter,—our education both in itself and in comparison with that of the Continent,—are at least worth studying.

The second point is this. The study of Continental education will show our educated and intelligent classes that many things which they wish for cannot be done as isolated operations, but must, if they are to be done at all, come in as parts of a regularly designed whole. Mr. Grant Duff, who, I must say, directed his attention to educational matters long before they were in everybody's thoughts as at present has pointed

this out with great truth and clearness. educated and intelligent classes, in their solicit for our backward working class, and their als for our industrial pre-eminence, are beginning cry out for technical schools for our artist Well-informed and distinguished people seem think it is only necessary to have special scho of arts and trades, as they have abroad, and t we may take a clever boy from our element schools, perfected by the Revised Code, and him at once into a special school. A study of best Continental experience will show them t the special school is the crown of a long co-orde series, designed and graduated by the best he in the country. A clever boy in a Pruss elementary school, passes first into a Mittelsch or higher elementary school, then into a mod or real school of the second class, then into real school of the first class, and finally, after these, into the special school. A boy who had this preparation is able to profit by a spec To send him there straight from school. elementary school, is like sending a boy from to hear Professor Ritschl lecture on Latin inscriptions.

I come, lastly, to the third point for our remark in Continental education. These foreign Governments which we think so offensively arbitrary, do at least take, when they administer education, the best educational opinion of the country into their counsels, and we do not. This comes partly from our disbelief in government, partly from our belief in machinery. Our disbelief in government makes us slow to organise government perfectly for any matter. Our belief in machinery makes us think that when we have organised a department, however imperfectly, it must prove efficacious and self-acting. The result is that while, on the Continent, through Boards and Councils, the best educational opinion of the country,—by which I mean the opinion of men like Sir James Shuttleworth, Mr. Mill, Dr. Temple, men who have established their right to be at least heard on these topics,—necessarily reaches the Government and influences its action, in this country there are no organised means for its ever reaching our Government at all. The most important questions of educational policy may be settled without men being even heard. A number of matters affecting public instruction in this coursel are at the present moment settled one heard attainable being first taken on to the Continent it is not so; and the more Government is likely, in England, to have intervene in educational matters, the more the Continental practice, in this particular, i and require our attention.

In conclusion. There are two chief obstates as it seems to me, which oppose themselves to consulting foreign experience with profit. On our notion of the State as an alien intrusive p in the community, not summing up and represing the action of individuals, but thwarting This notion is not so strong as it once was still it is strong enough to make it opportung quote some words from a foreign Report be me, which sets this much obscured point in

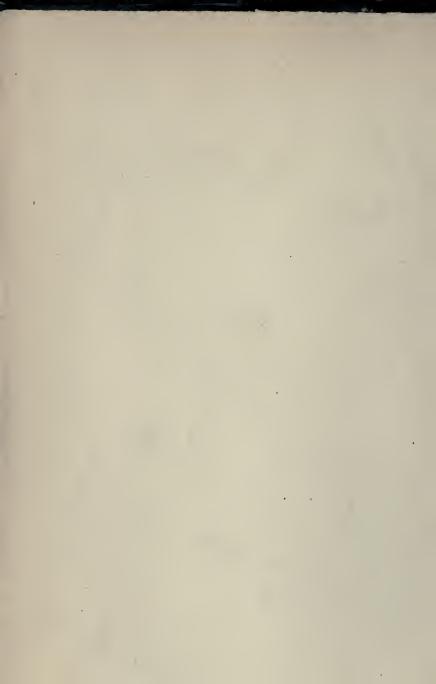
true light :--

"Le Gov rnement ne représente pas un intérêt particulier, listinct, puisqu'il est au contraire la plus haute et la plus sincère expression de tous les intérêts généraux du pays."

This is undoubtedly what a government ought to be; and, if it is not this, it is the duty of its citizens to try and make it this, not to try and get rid of so powerful and essential an agency as much as possible.

The other obstacle is our high opinion of our own energy and prosperity. This opinion is just; but it is possible to rely on it too long, and to strain our energy and our prosperity too hard. At any rate, our energy and our prosperity will be more fruitful and safer, the more we add intelligence to them. Here, if anywhere, is an occasion for applying the words of the wise man:

—"If the iron be blunt, and a man do not whet the edge, then must he put forth more strength; but wisdom is profitable to direct."



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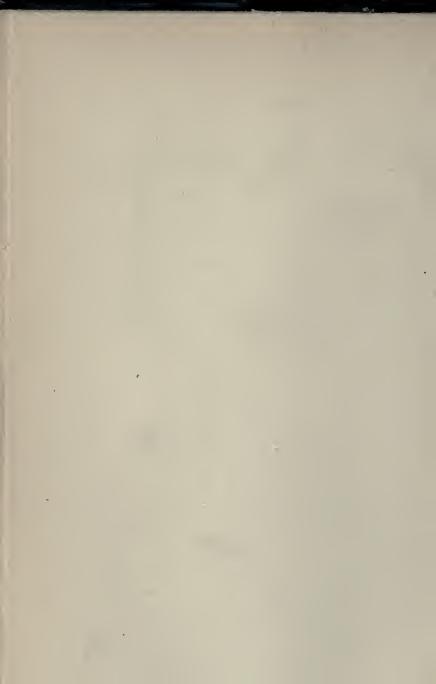
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HIGHER SCHOOLS AND UNIVERSITIES IN GERMANY.

CHAPTER I.

DEVELOPMENT OF THE GERMAN SECONDARY OR HIGHER SCHOOLS.

The Renascence and the Reformation—The German Schools and the Reformation—Decline of the German Schools and their recovery—The Prussian Schools Representative of those of Germany.

THE schools of France and Italy owed little to the great modern movement of the Renascence. In both these countries that movement operated, in both it produced mighty results; but of the official establishments for instruction it did not get hold. In Italy the mediæval routine in those establishments at first opposed a passive resistance to it; presently came the Catholic reaction, and sedulously shut it out from them. In France the

Renascence did not become a power in the and the routine of the schools sufficed to ex the new influence till it took for itself channels than the schools. But in German Renascence became a power in the State; with the Reformation, where the Reform triumphed in German countries the Renas triumphed with it, and entered with it int public schools. Melancthon and Erasmus not merely enemies and subverters of the d ion of the Church of Rome, they were en humanists; and with the great but single exce of Luther, the chief German reformers we of them distinguished friends of the new cla learning, as well as of Protestantism. The Re party was in German countries the ignorant also, the party untouched by the humanitie by culture.

Perhaps one reason why in England schools have not had the life and growth of schools of Germany and Holland is to be in the separation, with us, of the power of Reformation and the power of the Renason

With us too the Deformation triumphed on

possession of our schools; but our leading reformers were not at the same time, like those of Germany, the nation's leading spirits in intellect and culture. In Germany the best spirits of the nation were then the reformers. In England our best spirits,—Shakspeare, Bacon, Spenser—were men of the Renascence, not men of the Reformation, and our reformers were men of the second order. The Reformation, therefore, getting hold of the schools in England was a very different force, a force far inferior in light, resources, and prospects, to the Reformation getting hold of the schools in Germany.

But in Germany, nevertheless, as Protestant orthodoxy grew petrified like Catholic orthodoxy, and as, in consequence, Protestantism flagged and lost the powerful impulse with which it started, the school flagged also, and in the middle of the last century the classical teaching of Germany, in spite of a few honourable names like Gesner's, Ernesti's, and Heyne's, seems to have lost all the spirit and power of the 16th century humanists, to have been sinking into a mere church appendage, and fast becoming torpid. A theological student,

making his livelihood by teaching till he get appointed to a parish, was the usual sc master. "The schools will never be better," their great renovator, Friedrich August Wol well-known critic of Homer, "so long as schoolmasters are theologians by profession theological course in a university, with its sma ing of classics, is about as good a preparatio a classical master as a course of feudal law v be." 1 Wolf's coming to Halle in 1783, in by Von Zedlitz, the Minister for Public Wo under Frederick the Great, a sovereign v civil projects and labours were not less active remarkable than his military, marks an era which the classical schools of Germany, rev the dormant spark planted in them by Renascence, awoke to a new life, which, sinc

¹ See a most interesting article on Wolf in the North Review for June 1865. Not only for its account of Wo for its sketch of the movement in the higher education of many at a very critical time, this article well deserves sturned having been obliged to make myself acquainted many of the matters which its writer (Mr. Pattison) tou may perhaps be allowed, without appearing guilty of pretion, to add that it seems to me as trustworthy as it

beginning of this century, has drawn the eyes of all students of intellectual progress upon them.

Prussia was the scene of Wolf's labours, and the Prussian schools, both from their own excellence and from the preponderating importance of Prussia at the present time, are naturally the first_in Germany to attract the observer's attention.

As a rule, the secondary schools of Northern and Central Germany are better than those of Southern, and those of Protestant Germany better than those of Catholic. This will hardly be disputed; yet the school system all through Germany is in its main features much the same, and is, in its completeness and carefulness, such as to excite a foreigner's admiration. In Austria this excellent school system is not wanting; what is wanting there is the life, power, and faith in its own operations which animate it in other parts of Germany. Nowhere has it this life and faith more than in Prussia. It has them, indeed, in other and smaller German territories as well; a Prussian will himself readily admit that the schools of Frankfort, or of the kingdom of Würtemberg, are

as good as his own. But it is in countries of scale and size of Prussia that a living and p ful school system bears the most notew fruits; and it is in Prussia, therefore, that I proceed to trace them.

Prussia now, of course, stands for Germany in a degree beyond what could have been anticipated when the aboveritten.

CHAPTER II.

PRESENT ORGANISATION OF THE SECONDARY OR HIGHER SCHOOLS IN PRUSSIA.

Higher Schools of Prussia—Gymnasien—Progymnasien—Realschulen—Höhere Bürgerschulen—Vorschulen, or Preparatory Schools—Numbers of Teachers and Scholars.

The schools with which we are concerned, the secondary schools as the French call them, the higher schools (höhere Schulen) as the Germans call them, are in Prussia thus classed: Gymnasiums, Progymnasiums, Real Schools, Upper Burgher Schools (Gymnasien, Progymnasien, Real-schulen, höhere Bürgerschulen). Above these are the universities, below them the primary or elementary schools.¹

¹ The middle school (Mittelschule), variously called Stadt-schule, Bürgerschule, Rectoratschule, is in truth only an elementary school of a higher grade, and in France is called école élémentaire supérieure; in Switzerland, höhere Volkschule, Secundarschule

At the head of these secondary schools directly leading to the universities, are the nasien. The uniform employment of this Gymnasium to designate them, dates from government instruction of 1812. Before they were variously called by the name Gymnasium, Lyceum, Pædagogium, College, School, and others.

A gymnasium has properly six classes, con upwards from the sixth, the lowest, to the (prima), the highest. But, in fact, in all schools the classes have an upper part a lower part, and each part has, if necessary parallel groups (cætus). The sixth and classes form the lower division of the school fourth and third the middle division, the seand first the upper division. In former time Fachsystem, or system by which the pupil we different classes for the different branches of instruction, was prevalent; since 1820 this sy has been gradually superseded by the Chesystem, which keeps the pupil in the same

for all his work. The course in each of the

higher of two years, making nine in all; it being calculated that a boy should enter the gymnasium when he is nine or ten years old, and leave it for the university when he is eighteen or nineteen.

The Lehrplan, or plan of work, is fixed for all Gymnasien by ministerial authority, as in France and Italy. It is far, however, from being a series of detailed programmes as in those countries. What it does is to fix the matters of instruction, the number of hours to be allotted to them, the gradual development of them from the bottom of the school to the top. Within the limits of the general organisation of study thus established, great freedom is left to the teacher, and great variety is to be found in practice.

Some years ago the hours of work were 32 in the week. This was found too much, and since 1856, in the lowest class of a gymnasium there are 28 hours of regular school work in the week; in the five higher classes there are 30 hours. The school hours are in the morning from 7 to about 11 in summer, from 8 to about 12 in winter; in the afternoon they are from 2 to 4 all the year round. As in France, there is

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but one half-holiday in the week, and it is in middle of the week.

Latin has ten hours a week given to it is five classes below prima, and eight in pr Greek begins in quarta, and thenceforward six hours a week in each class, by which reader will at once see that we are no longe France or Italy, but in a country whose scl treat the study of Greek as seriously as the schools among ourselves. The mother to (and here we quit the practice of English sch has two hours a week in all classes below pr and three in prima. But in the two lo classes it is always taught in connection Latin and by the same teacher, and time if necessary, be taken from Latin to give t Arithmetic or mathematics have four hou week in secunda and prima, three in qu quarta, and tertia, and four again in the lo class. French begins in quinta, and is the modern language except their own which

boys learn as part of the regular school w it has three hours a week in *quinta*, and tw

their pupils the opportunity of learning English or Italian, but as an extra matter. Geography and history have two hours a week in sexta and quinta, and thenceforward three hours. The natural sciences get two hours in prima and one in secunda; in the rest of the school they are the most movable part of the work, the school authorities having it in their power to take time from them to give to arithmetic, geography, and history, or to add time to them in places where there is no Realschule and the boys in the middle of the gymnasium wish to study the natural sciences in preference to Greek. Drawing is a part of the regular school work in the three lower classes of the school, and has two hours a week. Sexta and quinta have three hours a week of the writing master.

Every class has religious instruction; sexta and quinta for three hours a week, the four higher classes for two. All the boys learn singing and gymnastics, and all who are destined for the theological faculty at the university learn in secunda and prima Hebrew; but these three matters do not come into the regular school hours.

I have said that in places where there is Realschule, boys in the middle division of a nasium may substitute other studies for th Greek. Where there is a Realschule access this is not permitted; and in the upper div of a gymnasium it is nowhere permitted. general, the gymnasium is steadily to regard allgemeine wissenschaftliche Bildung of the p the formation of his mind and of his powe knowledge, without prematurely taking the for the practical applicability of what he stu It is expressly forbidden to give this practical professional turn to the studies of a pupil in highest forms of a gymnasium, even when destined for the army.

Progymnasiums are merely gymnasiums out their higher classes. Most progymnas have the lower and middle divisions of a masium, four classes; some have only the ladivisions and half of the middle, three classome, again, have all the classes except particle progymnasium follows, so far as it has same classes, the *Lehrplan* of the gymnasium.

11.]

tain at once a progymnasium and a Realschule, the progymnasium has often parallel classes for classical and for non-classical studies. But, in general, the tendency within the last five years has been for the progymnasium to develop itself into the full gymnasium, and when I was at Berlin Dr. Wiese, a member of the Council of Education there, to whom I am indebted for much valuable assistance, pointed out to me on the map a number of places, scattered all about the Prussian dominions, where this process was either just completed or still going on.

To reform the old methods of teaching the classics, to reduce their preponderance, to make school studies bear more directly upon the wants of practical life, and to aim at imparting what is called "useful knowledge," were projects not unknown to the seventeenth and eighteenth century as well as to ours. Comenius, a Moravian by birth, who in 1641 was invited to England in

¹ Dr. Wiese has written an interesting work on the English public schools; but his book on those of Prussia, *Das höhere Schulwesen in Preussen*, Berlin, 1864 (pp. 740), is a mine of the fullest, most authentic information on the subject of which it treats, and is indispensable for all who have to study this closely.

order to remodel the schools here, and in following century Rousseau in France and Bas in Germany, promulgated, with various de of notoriety and success, various schemes with or other of these objects. The Philanthrop of Dessau, an institution established in pursu of them, was an experiment which made a noise in its day. It was broken up about I but its impulse and the ideas which set impulse in motion, continued, and bear fru the Realschulen. The name Realschule was used at Halle; a school with that title established there by Christoph Semler, in 1 This Realschule did not last long, but it followed by others in different parts of country. They took a long time to hit their line and to succeed; it is said to be only 1822 that the first really good specimen d This one was at Berlin, and though it did begin to work thoroughly well till 1822, it been founded in 1747, and had been in exist ever since that time. Its founder's name Johann Hecker, who was a Berlin parish cle man. The Government began to occupy i with the Realschulen in 1832, and as the growth of industry and the spread of the modern spirit gave them more and more importance, a definite plan and course had to be framed for them, as for the Gymnasien. This was done in 1859. Realschulen were distinguished as of three kinds; Realschulen of the first rank, Realschulen of the second rank, and higher Burgher Schools. Realschulen of the first rank the number and system of classes was the same as that for the Gymnasien; the full course was of nine years. The Lehrplan fixes a rather greater number of hours of school work for them than the Gymnasien have; 30 for the lowest class, 31 for the class next above, 32 for each of the four others.

All three kinds of *Realschulen* are for boys destined to callings for which university studies are not required. But Latin is still obligatory in *Realschulen* of the first rank, and in the three lower classes of these schools it has more time allotted to it than any other subject. In the

¹ By the Unterrichts- und Prüfungsordnung für die Realschulen und die höheren Bürgerschulen of the 6th of October in that year.

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It is found that after quarta, that is after to years of school, many of the Realschule boys le and an attempt is therefore made to render first three years' course as substantial and complete in itself as possible.

The Realschulen of the second rank have six classes of those of the first; but they distinguished from them by not having Latin n obligatory, by being free to make their cour general, by being allowed a considerable latitude in varying their arrangements to meet special local wants. A general, not professional, mental training, is still the aim of the Realschule of the first rank, in spite of its not preparing for the university. A lower grade of this training, with an admixture of directly practical and professional aims, satisfies the Realschule of the second rank.

Where a gymnasium and a *Realschule* are united in a single establishment, under one direction, the classes *sexta* and *quinta* may be common to both, but above *quinta* the classes must be separate.

The term Bürgerschule was long used interchangeably with that of Realschule. The regulations of 1859 have assigned the name of higher Burgher School to that third class of Realschulen, which has not the complete system of six forms that the Gymnasien and the other two kinds of Realschulen have. The higher Burgher School stands, therefore, to the Realschule in the same relation in which the Progymnasium stands to the Gymnasium. Some Burgher Schools have as many as five classes, only lacking prima. The very name of the Bürgerschulen indicates that in the predominance

of a local and a municipal character, and smaller share given to classics, they follow of the *Realschulen* of the second order. Still has three or four hours a week in all the best schools. They are, however, the least class all the higher schools; but several of them, it places where there cannot be two school gymnasial classes parallel with the *real* class as certain *Gymnasien*, in like circumstance real classes parallel with their classical class

As the elementary schools pursue a conteaching which is not specially designed as paration for the higher schools, it has become mon practice to establish *Vorschulen*, or prepactions, as in France, to be appendages several higher schools, to receive little boy out the previous examination in reading, arithmetic, grammar, and Scripture history, the higher school imposes, and to pass there their tenth year, duly prepared, into the

These are the higher or secondary sch Prussia. Before the Austrian war the

school. These Vorschulen have in general two

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plete school returns are those for the year 1863. In 1863, Prussia possessed 255 higher schools, with 3349 teachers in them, and 66,135 scholars. She had 84 *Vorschulen*, or public preparatory schools, with 188 teachers, and 8027 scholars. Of the 255 higher schools, 172 were classical schools, gymnasiums or progymnasiums, with 45,403 scholars; 83 were non-classical schools, belonging to one or other of the three orders of *Realschulen*, with 20,732 scholars.

All these schools have a public character, are subject to State inspection, must bring their accounts to be audited by a public functionary, and can have no masters whose qualifications have not been strictly and publicly tried. We find in the year 1865, I will not say in the public schools of England, but in all the schools which by any straining or indulgence can possibly be made to bear that title, 15,880 scholars. In the public higher schools and preparatory schools of Prussia we find 74,162 scholars.

I will not now press this comparison, but will pass on to show in what way the higher schools of Prussia have a public character.

CHAPTER III.

GOVERNMENT AND PATRONAGE OF THE PRU PUBLIC SCHOOLS.

Common Law of Prussia—State-action and Regulation and History of the Central Educational Depart Origin and History of the Provincial School Auth Provincial School Boards and District School Examining Commissions—Local and Municipal Authorities—Endowments and Charities; their ment—Patronage of Schools.

There is no organic school-law in Pruss; the organic school-law of France, though sk and projects of such a law have more than been prepared. But at present the public of the higher schools is exercised through a istrative orders and instructions, like the mof our Committee of Council on Education, the administrative authority has in Prussia

it has in England, and a much firmer one. It has for its basis these articles of the *Allgemeine Landrecht*, or common law of Prussia, which was drawn up in writing in Frederick the Great's reign, and promulgated in 1794, in the reign of his successor:—

"Schools and universities are State institutions, having for their object the instruction of youth in useful information and scientific knowledge.

"Such establishments are to be instituted only with the State's previous knowledge and consent.

"All public schools and public establishments of education are under the State's supervision, and must at all times submit themselves to its examinations and inspections.

"Whenever the appointment of teachers is not by virtue of the foundation or of a special privilege vested in certain persons or corporations, it belongs to the State.

"Even where the immediate supervision of such schools and the appointment of their teachers is committed to certain private persons or corporations new teachers cannot be appointed, and important changes in the contion and teaching of the school cannot be adwithout the previous knowledge or consent provincial school authorities.

"The teachers in the gymnasiums and higher schools have the character of functionaries."

To the same effect the Prussian Deed of stitution (*Verfassungs-Urkunde*) of 1850 h following:—

"For the education of the young suf provision is to be made by means of schools.

"Every one is free to impart instruction to found and to conduct establishments of struction, when he has proved to the satisfied of the proper State authorities that he has moral, scientific, and technical qualification quisite.

"All public and private establishment under the supervision of authorities name the State."

With these principles to serve as a

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much difficulty. These principles, however, may with real truth be said to form part of the common law of Prussia, for they form part of almost every Prussian citizen's notions of what is right and fitting in school concerns. It would be a mistake to suppose that the State in Prussia shows a grasping and centralising spirit in dealing with education; on the contrary, it makes the administration of it as local as it possibly can; but it takes care that education shall not be left to the chapter of accidents.

Up to the middle of the last century, however, the higher schools were so far left to this chapter of accidents, that the State practised little or no interference with the free action of patrons. But it is important to observe that the State was always, in Prussia, an important school patron itself, and exercised its rights of patronage, while in England these rights slipped from its hands. Royal foundations for schools are in Prussia very numerous, and in all Prussian schools of royal foundation the patronage remains vested in the Crown till this day. Schools like Eton and Westminster, like King Edward's School at Birming-

ham, like the grammar schools of Sherbor Bury St. Edmund's, and so many others, have been in Prussia "Crown patronage sch with a public, responsible, disinterested auti nominating their masters. So far, therefore without any assertion of the right of the St control private patrons, the higher school Prussia have a security which ours have The assertion of such a State right, beyon mere rights of the Crown as a patron, appe the reign of Friedrich Wilhelm I., and definiteness and purpose from that time The General-Directorium created by this sove in 1722, was a ministerial body with a dement for spiritualities (Geistliches Departeme which the exercise of the Crown rights of co over churches and schools were entrusted. department was in a few years attached to of the Minister of Justice, and as such is held by an able minister, formed in Fred the Great's school, Von Zedlitz, who in separated the church and school affairs o Geistliches Departement, and committed the s offine to a High Doord of Cohools (Olan)

collegium). In the great movement of reconstruction which between 1806 and 1812 renewed the civil and military organisation of Prussia, the Board of Schools was abolished, and the Education Department was made, in 1808, a section of the Home Office. Wilhelm von Humboldt was placed at its head. Finally, in 1817, this Education section became an independent ministerial department, and its chief took the title of Minister for Spiritualities and Education (Minister der Geistlichen- und Unterrichtsangelegenheiten). The first Minister was Freiherr von Alterstein. Medicine having been added to the affairs over which this department has supervision, the Minister's full style now is Minister der Geistlichen-Unterrichts-und Medicinalangelegenheiten.

When the Education Department was made a section of the Home Office, Wilhelm von Humboldt had two functionaries with the title of technische Räthe, technical counsellors, placed

¹ In June 1810, Wilhelm von Humboldt went as Prussian envoy to Vienna, and the rest of his public life was chiefly passed, as is well known, in the diplomatic service of his country.

with him. These technische Räthe have grown into eight, and they, with the Min and the under Secretary of State for the dement, constitute the central authority for affairs of education.

But in Prussia it is not the central Min

who has the most direct and important ac on the schools, it is the authorities represer the State in the several parts of the country. is from Wilhelm von Humboldt's accession office in 1808 that the establishment of a f ful relation between these two authorities, schools and the central power, really d Before that time, in accordance with the not which closely connected the School with Church, the provincial authorities with an ac upon the schools were the consistories. T were, indeed, State authorities, for their m bers are named by the Crown, or head of State; the head of the State being in Pri far more practically than in England the l

of the Church also, inasmuch as in Prussia Crown is actually *summus episcopus*; the po-

bishops, and in England, where we have kept our bishops, still vested in them, having gone, in Protestant Germany, straight to the Crown. The Crown as summus episcopus exercises its rights through consistories, and the members of the consistories are in consequence nominees of the State. The consistories therefore supplied a provincial State authority for dealing with schools. But the employment of them for this purpose had two evident administrative inconveniences, to say nothing of other objections to it. In the first place, the consistories were in relation at the centre of Government not with the Education Department but with the High Consistory. In the second place, it is only as a Protestant sovereign that the King of Prussia is head of the Church and represented throughout the country by consistories. As a Catholic sovereign he is not head of the Church, and has in the provinces no consistory or ecclesiastical authority which is also a State authority. Prussia has nearly seven millions of Catholic subjects. For Catholic schools, therefore, as well as for Protestant, a provincial State authority was

required, and this authority the consistory co not supply.

The administration of 1808 established in a of the Regierungen, or governmental districts, which Prussia was divided, a deputation worship and public instruction (Deputation Cultus und öffentlichen Unterricht). These d tations were in immediate connexion with Education Department at Berlin; they represen in the supervision of the schools in the proving the State authority, and exercised for the part the Crown patronage. In 1810 were ac three Scientific Deputations (Wissenschaft Deputationen), one at Berlin, one at Königsberg at Breslau, to examine teachers for the seconschools and to advise the Government on important matters relating to these. The B deputation had for its members the two techn Räthe of the Education Department, Süvern Nicolovius, and besides these, Ancillon, Fried August Wolf, and Schleiermacher. The En reader will observe the sort of persons wh Prussia were chosen for the management, at a

The higher schools of Prussia feel to this day the benefits of that management. Variations took place in the organisation of the provincial authority, as the different divisions of the Prussian monarchy were constituted afresh, but its general character remained the same, and has remained so till this day. Prussia is now divided into eight provinces,¹ and these eight provinces are again divided into twenty-six governmental districts, or Regierungen. There is a Provincial School Board (Provinzial-Schulcollegium) in the chief town of each of the eight provinces, and a Governmental District Board in that of each of the twenty-six Regierungen. In general, the State's relations with the higher class of secondary schools are exercised through the Provincial Board; its relations with the lower class of them, and with the primary schools, through the District Board. In Berlin, the relations with these also are managed by the Provincial Board. A Provincial-Schulcollegium has for its president the High President of the province; for its director the vice-president of

¹ I speak throughout of Prussia as she was before her late war with Austria.

that governmental district which happens to I for its centre the provincial capital. The Be has two or three other members, of whom general, one is a Catholic and one is a Protest and one is always a man practically converwith school matters. The District Board has the provincial capitals the same president director as the Provincial Board; in the occurres of Regierungen it has for its president President of the Regierung, and three or four most bers selected on the same principle as the mem of the Provincial Board.

The provincial State authority, therefore, in general, for gymnasiums, the larger prognasiums, and *Realschulen* of the first rank, Provincial School Board; for the smaller gymnasiums, *Realschulen* of the second rank, higher Burgher Schools, and the primary school all kinds, the Governmental District Bo Both boards are in continual communication with Education Minister at Berlin, and every or three years they have to draw up for hir general report on the school affairs of their properties.

The Scientific Deputations are now replaced by seven Examination Commissions (Wissenschaftliche Prüfungscommissionen).\(^1\) The most important business of these Commissions being to examine teachers for the secondary schools, they have seven members, one for each of the main subjects in which teachers are examined,—philology, history, mathematics, pædagogy, theology, and the natural sciences. These Commissions report to the Minister every year.

Besides the central and provincial administration there is a local or municipal administration for schools that are not Crown patronage schools. Matters of teaching and discipline,—interna as they are called,—do not in any public schools, even when their patrons are municipalities or private persons, come within the jurisdiction of the local authority; they are referred to the provincial and district boards. The local authority administers externa,—that is, it manages the school

¹ The seats of these seven Commissions are the towns of Berlin, Königsberg, Breslau, Halle, Münster, Bonn, and Greifswald. These towns are also the seats of the Prussian universities.

property, fixes the school fees, gives free adr sions to poor scholars, and the like; and it no nates, when the patronage is private or munici-

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the teacher; but for his confirmation recov must be had to the State authority, provincial central. Thus, if local or municipal patrons ch to appoint a master who had not got his certific from one of the Examination Commissions, appointment would be quashed. In most toy the local authority for schools of municipal ronage is the town magistracy, assisted by Stadtschulrath; sometimes the local authority i Curatorium or Schulcommission. To take one of as a specimen. The two town gymnasiums Breslau are under a Curatorium, of which composition is as follows: a member of magistracy (who must be a lawyer), preside two members chosen by the representative be of the commune, and the rectors of the t gymnasiums. This body draws up the sch estimate, of which presently; looks after administration of the school property, sees t the school premises are kept in order and prope at the leaving examinations, or other public solemnities in which the gymnasiums are concerned, has a consultative voice as to any change in the mode of regulating the free admissions, receives from the rector, when he and the majority of the masters are agreed on a boy's expulsion, notice that a boy has been expelled, with the grounds for it; if the rector and a majority of his Lehrercollegium differ as to the propriety of expelling, the Curatorium decides. It is not the Curatorium that nominates the masters, but the town magistracy, subject to approval by the proper State authority. The teaching and all that relates to it are in each gymnasium under the rector's control, who is responsible on this head to the Provincial Board and not to the Curatorium.

In cases where the Crown has had a share in endowing a school, or has made a grant to it, it acquires joint rights of patronage with the local patrons, and for the exercise of these rights it is represented by a commissioner, who is always, as such, a member of the *Curatorium*.

Only a few Prussian schools, such as those of Schulpforta and Rossleben, or the Joachimsthal School at Berlin, have so large an endown

that it can fully support them. But a very la number have endowments of some sort, or grants from some school charity or other, such the Marienstift at Stettin for schools in Pomera the Sacksche Stiftung in Silesia for schools in principalities of Glogau, Wohlau, and Liegi and many other such foundations. The Provin or District Boards supervise the externa, the perty concerns, as well as the *interna*, the teach concerns, of all schools of Crown patronage; by the Prussian law, wherever there is an end ment, there is a public right to see that endowment is properly employed; so that the is a public control for the management of endowments of private as well as of Cro patronage. The school appoints a man of busing (Rendant, Rechnungsführer) charged with financial administration (Cassenführung) of school; the authority in whom the patronag the school is vested (Patronatsbehörde) draws

a school estimate (Schul-Etat) every three ye showing in detail the school's income, actual

and its estimated expenditure. In every government district, or Regierung, there is a public functionary, whose business it is to review these estimates, and who addresses to the Rendant his remarks and requirements (Revisionserinnerungen, Revisionsforschungen), which the Rendant has to lay before the Patronatsbehörde, whatever this may be, Curatorium, Schulcommission, etc., and to which this authority must pay attention. abusive application of trust funds, or of grants from a charity, is thus checked; all expenses not in the estimate have to be accounted for, and all improper expenses are disallowed. The local patrons can only resist by applying to the administrative authority next above that which has dealt with them (vorgesetzte Instanz), and this appeal they will never make when they know they have a bad case.

The State has part in the patronage of more than half of the secondary schools in Prussia; in 72 of them as absolute patron, in 74 of them as part patron. The immense majority of the schools of which it is absolute patron belong to the category of Community the highest and most expensive

class of secondary schools. There were, in 186 145 gymnasien in Prussia; of 65 of these t

Crown had the exclusive patronage. At the sa date there were 28 Progymnasien, 49 Realschu of the first rank, 16 of the second, and 21 high Burgher Schools. Of only seven of these had t Crown the exclusive patronage; of three p gymnasiums, two Realschulen of the first rank, of of the second, and one higher Burgher Scho Under municipal patronage were 26 gymnasius 11 progymnasiums, 35 Realschulen of the fi rank, 10 of the second, and 13 higher Burg Schools. The municipalities thus show that le ing towards real instruction which might be pected from them; of the 49 Realschulen of first rank they have 35. What is most striking an Englishman is the small number of public scho under patronage neither royal nor municipal, under the patronage of some church, or corporati or private person; there are but 12 of them al gether, five Gymnasien, two Progymnasien,

¹ A year later than the year for which I had complete retu and for which I gave, as the total of Prussian higher sch

Realschule of the first order, and four higher Burgher Schools. The question therefore as to the rights and interests of private patrons of public schools does not take, so far as the number of their school goes, very important dimensions. total expenditure on the higher schools and their Vorschulen was, in 1864, 2,580,684 thalers (in round figures, about £387,100). Of this sum the scholars' fees contributed 1,193,055 thalers; the State, 526,722 thalers; the municipalities, 401,046 thalers; school property produced 384,224 thalers, and benefactions not under public administration, 75,637 thalers. The State is therefore, after the scholars themselves, the great supporter of the public schools, as well as the principal patron of them.

But the reader will ask, in what sense are the schools with private patrons to be called public schools? They are public schools because they fulfil the requirements, adopt the title and constitution, and follow the *Lehrplan* fixed by public authority for the five classes of public secondary schools, and by so doing obtain the *status* and privi-

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important establishments, then, the reader m next ask, which do not care to get this status, I prefer to be independent? I answer: No sch in Prussia can be *independent*, in the sense of own no account to any one for the teacher it emplo or the way in which it is conducted; because every school there is a verordnete Aufsichtsgewe an ordained authority of supervision. But priva persons are no doubt free to open establishments their own, give them a constitution of their ov and follow a Lehrplan of their own. There are t large private schools in Berlin for the class of bo who go to secondary schools; these private school however, have the public schools in view, and to boys whose parents do not like to send them ve young to the great public schools, classical or no classical; but when these boys are ready for t middle divison of the public Gymnasium or Re schule, they pass on there. These private scho are merely preparatory schools for the pub schools, and accordingly they are organised as p

gymnasiums and as higher Burgher Schools. The represent no anti-public school feeling, no riverse and as higher Burgher Schools.

which did not prepare for the public schools, which gave a complete course of secondary instruction of their own arranging, and which were private schools, écoles libres, in the full sense of the term, the Plamannsche Anstalt and the Cauersche Anstalt, —existed at Berlin not long ago, but they exist there no longer. Experiments of the same kind are being tried eleswhere. The Victoria Institut, at Falkenberg, is a prominent specimen of them; it is a regular private boarding school, charging 400 thalers (£60) a year, and it professes to give the training either of the gymnasiums or of the Realschulen, whichever the pupil prefers. The English generally know more of schools of this kind than of the public schools in Germany, because this kind of private school has a boarding establishment and the public schools have not, and a foreign parent generally looks out for a school with a boarding establishment. For the most part he is no judge at all of schools on their real merits; he sends his son to a foreign school that he may learn the modern languages, and the boy will learn these at a private school just as much as at a public one. But the Germans themselves undoubtedly prefer

their public schools. An attendance in the pusecondary schools of 74,000 pupils, in a popula of 18,500,000, which is Prussia's population, she that the Prussians prefer them. And it is the sein other German countries.

CHAPTER IV.

PREPONDERANCE OF PUBLIC SCHOOLS. THE ABITURIENTENEXAMEN.

Preference for Public Schools—The Leaving Examination (Abiturientenexamen); its History—Present Plan of the Leaving Examination in Gymnasien—Object Proposed by the Founders of the Leaving Examination—Leaving Examination in Realschulen—Examinations of Passage.

I BELIEVE that the public schools are preferred in Prussia, on their merits. The Prussians are satisfied with them, and are proud of them, and with good reason; the schools have been intelligently planned to meet their intelligent wants. But the preponderance of the public schools is further secured by the establishment in connexion with them of the "leaving examinations" (Abiturientenprüfungen, Maturitätsprüfungen, Entlassungsprüfungen, Abagnasprüfungen), on

which depends admission to the universities special schools (Fachschulen) like the Gewe Institut or the Bauakademie, and to civil military service of the State. The lear professions can only be reached through universities, so the access to these professi depends on the leaving examination. The pu of private tutors or private schools can pres themselves for this examination; but it is I at the public schools, it turns upon the stu of the upper forms of the public schools, and is conducted in great part by their teachers. public schoolboy undoubtedly presents himself it with an advantage; and its object undoubte is not the illusory one of an examination-tes in our public service it is employed, but the so one of ensuring as far as possible that a ye shall pass a certain number of years under best school-teaching of his country. This re trains him, which the mere application of examination-test does not; but an examinat test is wisely used in conjunction with training, to take care that a youth has re feel it had made its public secondary schools the best places of training for its middle and upper classes, could institute the leaving examination I am going to describe; but Prussia has a right to feel that she has made hers this, and therefore she had a right to institute this examination. It forms an all-important part of the secondary instruction of that country, and I hope the reader will give me his attention while I describe it.

Before 1788 admission to the Prussian universities was a very easy affair. You went to the dean of the faculty in which you wished to study; you generally brought with you a letter of recommendation from the school you left; the dean asked you a few questions and ascertained that you knew Latin; then you were matriculated. The Ober-Schulcollegium, which was in 1788 the authority at the head of Prussian public instruction, perceiving that from the insufficiency of the entrance examination the universities were cumbered with unprepared and idle students, determined to try and cure this state of things. In

to the public schools and universities direct that the public schools should make their k

undergo an examination before they proceede the university; and that the universities sho make the boys who came up to them from private schools undergo an examination correspondin that of the public schoolboys. Every one underwent the examination was to receive certificate of his ripeness or unripeness university studies (Zeugniss der Reife, Zeug der Unreife). The candidates declared to unripe might still enter the university if t parents chose; but it was hoped that, gui by this test, their parents would keep them school till they were properly prepared, or send them into some other line. No plan examination was prescribed, but the certifi was to record, under the two heads of langu and sciences, the candidate's proficiency in e of these matters.

The Allgemeine Landrecht, promulgated 1794, after complaints had been rife that universities had still a number of unpr

merely to escape military service, made yet stricter regulations. It ordered the examination held at the university for boys coming from private schools to be conducted by a Commission; and it forbade the matriculation of any one who did not obtain a certificate of his ripeness.

But the omitting to prescribe a definite plan for the examination, and the entrusting them to two different bodies, the schools and the universities, caused the intentions of the Government to be in great measure frustrated. There was no uniform standard of examination. The schools made the standard high, the universities made it low; and numbers of young men leaving the public schools without undergoing the Abiturientenexamen there, waited a little while, and then presented themselves to be examined at the university, where the examination was notoriously much laxer than at the school.

The great epoch of reform for the higher schools of Prussia is Wilhelm von Humboldt's year and a half at the head of the Education Department. The first words of a memorandum of this date on a proposal not to require Greak except of students.

for orders: "Es ist nicht darum zu thun, Schulen und Universitäten in einem trägen kraftlosen Gewohnheitsgange blieben, son darum, dass durch sie die Bildung der Nation eine immer höhere Stufe gebracht werde,"1-m be taken as a motto for his whole administra of public instruction. It was Wilhelm Humboldt who took the most important towards making the Abiturientenpriifung v it now is. He was the originator of a unif plan of examination obligatory on all who amined candidates for entrance to the university Schleiermacher, who, as I have said, was a men of the Education Council, wished to take a this examination from the universities, and to it entirely to the schools. This was not done, the course of examination was strictly defin and a form of certificate, fully indicating its resu was prescribed. The certificate was of three grad No. 1 declared its possessor to be thoroughly qu fied for the university; No. 2 declared him to

^{1 &}quot;The thing is not, to let the schools and universities g in a drowsy and impotent routine; the thing is, to raise

partially qualified; No. 3 to be unqualified (untüchtig). But this plan of reform, which was brought into operation in 1812, could not produce its due fruits so long as the double examination was maintained. After the peace of 1815 there was a great flow of students to the universities; many of them were very ill prepared; but the universities, with the natural desire to get as many students as possible, eased the examinations to them as much as they could, and admitted the holders of any certificate at all, even of No. 3, to matriculation. At Bonn, in 1822, out of 139 certificates for that year, 122 were of No. 3, declaring the holder unqualified for the University; 16 were of No. 2, declaring him partially qualified; only one was of No. 1, declaring him thoroughly The Provincial School Boards reported qualified. to the minister that the efforts of the schools were frustrated by the laxity of the university commissions, which got more and more candidates. The schools in their turn were inclined to make the first grade of certificate a reward of severe competitive examination, which was by no means what those who instituted it intended. The admission to the universities of young men declar to be unqualified, the two kinds of examinated bodies with different views and standards, and threefold grade of certificate, were found of obstacles to the successful working of the reference of 1812.

All three obstacles have been removed. regulations at present in force date from 1834 1856. The leaving examination is now held the Gymnasien only. The threefold grade certificate is abolished, and the candidate is, as old times, certified to be reif or unreif. No as a general rule, can without a certificate att university lectures at all; and no one without certificate of ripeness can be regularly matricula in any faculty. The examining body is thus c posed: the director of the gymnasium and the fessors who teach in prima; a representative of Schul-Curatorium, where the gymnasium has a Cr torium; the Crown's Compatronats Commissa (joint patronage commissary) where there is o and a member or delegate of the Provincial Sch

¹ Réglement vom 4 Juni 1834, completed by Verfügung

Board. The representative of the Provincial School Board is always president of the examining commission. The Abiturient, or leaving boy, must have been two years in prima. The examination work is to be of the same pitch as the regular work of this class, though it must not contain passages that have been actually done in school. But neither, on the other hand, must it be such as to require any specielle Vorstudien. It embraces the mother tongue, Latin, Greek, and French; mathematics and physics, geography, history, and divinity. An Abiturient who is going to enter the theological faculty at the university is examined in Hebrew. The examination is both by writing and viva voce. The paper work lasts a week, and the candidate who fails in it is not tried viva voce. The examination papers are prepared by the director and teachers, but several sets have to be in readiness,

¹ Specimens of the subjects set for the German and Latin essay at these examinations are the following. For the German essay:—"How did Athens come to be the centre of the intellectual life of Greece?"—"From Goethe's Götz von Berlichingen draw out a picture of the social state of Germany at the time in which the action of the play is laid." For the Latin essay:—"P. Clodio, cum, ut Ciceronem in exilium ejiceret, in animum induxisset, quæ res fuerint adjumento?—Hannibal quibus de

and the president of the examining commiss who represents the Provincial School Board the State, chooses each paper as it is to be gr

He also, at the viva voce examinate chooses the passages if he likes, and himself any question he may think proper. The Proving School Board have at any time the power to di that the same examination papers shall be for all the gymnasiums of the province. I performance is marked insufficient, sufficient, of or excellent, and no other terms, and no quali tions of these, are admitted. A candidate wh fully up to the mark in the mother tongue an Latin, and considerably above it either in cla or mathematics, is declared reif,—passes,—the he may fall below it in other things. If commission are not unanimous about passing candidate, they vote; the youngest member vo first and the president last. If the votes are e the president has a casting vote. But the presi may refuse to pass a candidate though the major have voted for him. In this case, however, candidate's papers must go to the highest ex

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commission in whose district the province is, for their decision upon them. To this same High Commission all the papers of half the gymnasiums of each province are each half-year referred for their remarks; their remarks, if they have any to make, are addressed by them to the Provincial School Board, and by the Provincial School Board transmitted to the gymnasiums concerned.

The examination takes place about six weeks before the end of the half. The certificates are given out to the successful candidates at the solemnity which takes place in the *Aula* of a German public school at the end of a half-year, or *Semester*. Each member of the examining commission signs the certificate, which, besides defining the candidate's proficiency in each of the matters of examination, has three additional

¹ At this solemnity a dissertation is read by the director or one of the professors, and every European student knows how much valuable matter has appeared in these dissertations. I have before me the dissertations held in the last year or two at several of the schools I visited. The following are specimens of their subjects:—"De Sallustii dicendi genere commentatio.—Criticarum scriptionum specimen.—Der Prediger Salomo.—Die Erziehung für den Staatsdienst bei den Athenern.—Untersuch-

rubrics for *conduct*, *diligence*, and *attainments*, whare filled up by the school authorities as he deser

The candidate who is considered unreif,

not passed, is recommended, according to examination and his previous school career, ei to stay another half-year at school and then again, or to give up his intention of going to university. If he still persists in going ther once, he may; but he must carry with hir certificate of his present unfitness (Zeugniss .Nichtreife), a certificate with the same rubric the other, and signed in the same way. V this certificate, he holds an exceptional, inc plete position at the university: he cannot ex himself in any faculty except that of philosophics and then he is entered in a special register, not regularly matriculated. He can, there attend lectures; but his time does not count f degree, and he can hold no public benefice exhibition. He may be examined once more, only once, going to a gymnasium for that purp the three or four years' course required in faculty which he follows only begins to co from the time when he negged

The reader will recollect that for the learned professions,—the church, the law, and medicine,—and for the post of teachers in the high schools and universities, it is necessary to have gone regularly through the university course and to have graduated.

Candidates who have not been at a public school, but who wish to enter the university, must apply to the Provincial School Board of their province for leave to attend a certificate examination. They have to bring testimonials, and a curriculum vitæ written by themselves in German, and are then directed by the school board to a gymnasium where they may be examined. They have to pay an examination fee of ten thalers. If they fail, the examining commission of the gymnasium is empowered to fix a time within which they may not try again, and they may only try twice. They may, however, if they fail to pass, go up to the university on the same condition as the public schoolboys who fail. These externi, as they are called, are not examined along with the Abiturienten of the gymnasium, though they are exam-

boys who come from private instruction are by minister's directions to have allowance made their not being examined by their own teach and, so far, to be more leniently treated in examination than the Abiturienten. On the o hand, boys who have been at a gymnasium who have left in order to prepare themselves v a private tutor, are not entitled to any spe indulgence. Indeed a public school boy, who evade the rule requiring two years in prima, lea the gymnasium in secunda, goes to a private scl or private tutor, and offers himself for examina within two years, needs a special permission f the minister in order to be examined. So wel the Prussian authorities know how insufficient instrument for their object,—that of promoting national culture and filling the professions with men,—is the bare examination test; so averse they to cram; so clearly do they perceive that w forms a youth, and what he should in all w be induced to acquire, is the orderly developm of his faculties under good and trained teachin With this view, all the instructions for

dates to no special preparation and effort, but to be such as "a scholar of fair ability and proper diligence may at the end of his school course come to with a quiet mind, and without a painful preparatory effort tending to relaxation and torpor as soon as the effort is over." The total cultivation (Gesammtbildung) of the candidate is the great matter, and this is why the two years of prima are prescribed: "that the instruction in this highest class may not degenerate into a preparation for the examination, that the pupil may have the requisite time to come steadily and without overhurrying to the fulness of the measure of his powers and character, that he may be securely and thoroughly formed, instead of being bewildered and oppressed by a mass of information hastily heaped together." All tumultuarische Vorbereitung and all stimulation of vanity and emulation is to be discouraged, and the examination, like the school, is to regard das Wesentliche und Dauernde-the substantial and enduring. Accordingly, the composition and the passages for translation are great matters in

¹ Perverse studet qui examinibus studet, was a favourite saying

German examinations, not those papers of questi by which the examiner is so led to show his w of sense, and the examinee his stores of cram.

That a boy shall have been for a certain num of years under good training is what, in Prus the State wants to secure; and it uses the eximation test to help it to secure this. We less training to take its chance, and we put examination test to a use for which it is quantitative.

inadequate to try and make up for our neglect

The same course is followed with the Realschar and with the higher Burgher Schools. For entrate to the different branches of the public service, leaving certificate of the classical school had up 1832 been required. For certain of these branches it was determined in 1832 to accept henceforth certificate of the Realschule or the higher Burg School instead of that of the gymnasium.

ferent departments made their own stipulation the Minister of Public Works, for instance, stipulated that the certificate of the candidate for *Bauakademie* (School of Architecture) should

valid only when the candidate's Realschule

class, or with the full number of six classes, and when he had passed two years in each of the two highest classes. I mention a detail of this kind to show the English reader how entirely it is the boy's school and training which the Prussian Government thinks the great matter, and not his examination. Since 1832 the tendency has been to withdraw again from the Realschule certificate its validity for the higher posts in the scientific departments of the public service; for these posts, the gymnasial leaving certificate is now again required. But for a very great number of posts in the public service the certificate of the Realschule is still valid, and for a still greater number of posts in the pursuits of commerce and industry employers now require it. The Education Department issued in 1859 the rules by which the examination for this certificate is at present governed. They are the same, mutatis mutandis, with those for the Maturitätsprüfung at the gymnasium. The examining commission is composed in precisely the same way; the examination and the issue of the certificates follow the same course. The subjects are: divinity, the mother teners and its literature that the latin of

easy passages from Latin authors, but, in gene no Latin writing; French and English, in trans tion, writing, and speaking; ancient history; history of Germany, England, and France, for last three centuries; geography; physics a chemistry; pure and applied mathematics; a drawing. Excellence in one subject may count balance shortcomings in another, but no candid can pass who absolutely fails in any. Externiv want the certificate are admitted to examination the same terms, and at the same fee, as in Gymnasien. In Realschulen of the second rank examination is easier than in those of the first, the certificate has not the same value. The gangsprüfung and Abgangszeugniss of a hig Burgher School, again, are still more easily pas and won, but still less valuable. The Abgangsze niss of a higher Burgher School entitles the hol to enter the prima of a first-rate Realschule; ofte very important opening to a clever boy in a sm country place, who for one year can afford to to a school away from home, but could not he afforded to get all his schooling there.

To the reasons from the tentia and accounted

the gymnasium or of the Realschule, examinations are also attached, for which a certificate, if the boy leaves after passing one of them, is given, declaring his ripeness at that stage. For many subordinate employments in the civil service these certificates are accepted. To be a teacher of drawing in a public school, for instance, a certificate of ripeness for secunda of a gymnasium or of a first rank Realschule or higher Burgher School is required; this if the candidate has not been at a public school and has to be examined as an externus; 1 if he has been at a public school, the certificate of his having passed the examination out of secunda at a second rank Realschule is sufficient. One important employment of school certificates is to entitle the holder to shorter military service (Zulassung zum einjährigen freiwilligen Militairdienst). Young men who volunteer to serve for one year, arming and clothing themselves, the term of military service to be then at an end, must, to be accepted, produce a certificate of a certain value, either from a gymnasium or a Realschule.

¹ For the examination of externi for this lower kind of certifi-

It shows how many more gymnasium b

there are who go through the full school couthan *Realschule* boys, that whereas from the Gr

nasien in 1863 there were 1765 Abiturienten fr prima, from the Realschulen in the same year th were but 214. Adding to the 1765 Abiturier 40 Externen who passed at the same time, have 1805 boys who got the classical certificate ripeness in 1863. Of this number 1563 went that year to the Prussian universities. Of the Abiturienten from the Realschulen (to whom are be added three Externen, making 217), 124 w into the public service, 92 into the pursuits commerce or industry; one went to prepare the gymnasial leaving examination, that he mi go into a learned profession. Evidently the m of those who go into business leave the Realsch before prima, and the majority of those who s for prima stay with the hope of public empl But the minor certificates accessible those who leave secunda and tertia promote attendance at school longer than that which be going into business would without the attract promote, too, a wholesome return upon the school work done, and a mastering of it as a whole; which tend, the school work having in the first instance been sound and well given, to make culture take a permanent hold upon the future tradesman or farmer. Accordingly, it is common to meet in Germany with people of the tradesman class who even read (in translation, of course) any important or interesting book that comes out in another country, a book like Macaulay's *History of England*, for instance; and how unlike this state of culture is to that of the English tradesman, the English reader himself knows very well.

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THE PRUSSIAN SCHOOLMASTERS; THEIR TRAININ EXAMINATION, APPOINTMENT, AND PAYMENT.

Examination for Schoolmasters—Its History—Present Pla
Examination for Schoolmasters—Normal Seminaries
Schoolmasters—Probation and Practising Lessons of Sch
masters—Appointment of Schoolmasters, and Jurisdic
over them—Intervention of the Education Ministe
Religious Instruction—Denominational character of
Prussian Schools—Wide Acceptation of the Denomina
Evangelisch—Exclusion from School Posts of certain
senters and of Jews—Rank and Title of Schoolmaste
Payment of Schoolmasters.

To insure that the school work, which so much done to encourage, shall indeed be sound and we given, it is not in Prussia thought sufficient to the schoolboy and the candidate for matriculation the candidate for the office of teacher is test too. This test is the famous Staatsprüfung

ashashmastons (Printerna dan Candidatan dan hiha

Schulamts), and is the third great educational reform I have enumerated (the Lehrplan and the Maturitätsprüfung being the other two) which owes its institution to Wilhelm von Humboldt. Before 1810 a certificate of having proved his fitness was not required of a candidate for the post of schoolmaster. Municipal and private schoolpatrons, in particular, made their nomination with little regard to any test of the kind. There was generally in their school a practice of promoting the teachers by seniority to the higher classes, and this practice had very mischievous results. A project was canvassed for giving to the authorities of public instruction the direct appointment to the more important posts in schools even of municipal or private patronage. This project was abandoned. "But," said Wilhelm von Humboldt, "the one defence we can raise against the misuse of their rights by patrons, is the test of a trial of the intending schoolmaster's qualifications."

This test was established in 1810. An examination and a trial lesson were appointed for all

illegal for school patrons to nominate as tea any persons who were not geprüfte Subjecte. time went on, the security thus taken was gr ally made stronger. The trial lesson was f to be an inutility, as any one who has heard lessons in our primary Normal Schools can re believe, and a trial year in a school (Probe was in 1826 substituted for it. In the follo year it was ruled that the pädagogische Prü which forms part of the examination of candi for orders, and which had hitherto been accept lieu of the new test, was insufficient; and that sons in orders, as well as others, must go thr the special examination for schoolmasters. regulation gave full development to a policy w had been contained in the reform of 1810, a p which Wolf had long before done his best to pare and had declared to be indispensable i higher schools of Prussia were to be made oughly good :- the policy of making the sc master's business a profession by itself, and rating it altogether from theology.

The rules now in force for this examination

Examining Commissions (Königliche Wissenschaftliche Prüfungscommissionen) of which I have already described the composition, and which are seven in number. The candidate sends in his school-certificate of fitness for university studies, and his certificate of a three years' attendance at university lectures. With these certificates he forwards to the commission a curriculum vitæ, such as used to be required from candidates for many Oxford fellowships. The candidate for the gymnasium writes this in Latin; the candidate for the Realschule may write it in French. The certificate given takes the form of a facultas docendi, or leave to teach; and this is bedingte or unbedingte,—conditional or unconditional. The matters for examinations are grouped under four main heads (Hauptfächer): first, Greek, Latin, and the mother tongue; secondly, mathematics and the natural sciences; thirdly, history and geography; fourthly, theology and Hebrew. This last Hauptfach concerns especially those who are to give the religious instruction in the public schools; if they have been examined for orders before a theological board and have passed well, an oral examination is all

the divinity-examination they have to un before the Commission. Those who are to the secular instruction have likewise only a examination in divinity, and are not examin Hebrew; but they must satisfy the Commiss. to their acquaintance with Scripture and wit dogmatic and moral tenets of Christianity. didates weak in their divinity have this wea noted in their certificate, and the Prov School Boards are directed not to appoint teacher weak in this particular till he has be examined and has passed satisfactorily; an curriculum vitæ of every candidate has in the instance to state what he has done at the univ to keep up and increase his knowledge of div (seine Religionswissenschaftlichen Kenntnis erweitern und tiefer zu begründen). These regulations date from within the last tw years.

The unconditional facultas docendi is only to that candidate who in his Hauptfach shimself fit to teach one of the two highest fand sufficiently acquainted with the matters other Hauptfächer to be useful to his class in

The candidate who in one *Hauptfach* is strong enough for any class up to *secunda*, inclusive, but falls altogether below the mark in other sciences, receives a *bedingte* "facultas docendi" for the middle or the lower forms, according as his capacity and the extent of his performance and of his failure seem to merit.

All candidates are required to be able to translate French with ease, and they must know its grammar. All must show some acquaintance with philosophy and pædagogic, candidates for the unconditional facultas docendi a very considerable acquaintance; and all must satisfy the examiners that they have some knowledge of the natural sciences.

The candidate for a *Realschule* or a higher Burgher School need not take Greek, but he must pass in Latin. His *Hauptfächer* are: mathematics,

¹ The Germans, as is well known, attach much importance to the science of pædagogic. That science is as yet far from being matured, and much nonsense is talked on the subject of it; still, the total unacquaintance with it, and with all which has been written about it, in which the intending schoolmaster is, in England, suffered to remain, has, I am convinced, injurious effects both on our schoolmasters and on our schools.

natural sciences, history and geography, the stongue, modern languages. His examinate all the non-classical matters is even more gent than that of candidates for the gymn because of his comparative exemption classics.

The trials pro loco and pro ascensione a aminations imposed when the nominee to a has not yet proved his qualifications for that For instance, the holder of a conditional f docendi cannot be appointed to a class in the est division without being re-examined, a holder of an unconditional facultas docend not teach another matter than the Haupt which he has proved his first-class qualifications without being re-examined.

A special facultas docendi is given to the steacher of modern languages; but even he, the modern language he is to teach, must as much Latin, history, geography, and phile as is required of candidates who are to te the middle division of a gymnasium. This vision guards against the employment of so

co unfit by their training and general attain

to rule a class, as those whom we too often see chosen as teachers of modern languages.

The High Commissioners send yearly to the Provincial School Board of each province a report of these examinations for that province, with the necessary remarks. The candidates for masterships present themselves, with their certificates, to the School Board of the province in which they wish to be employed. In certain exceptional cases candidates may be employed two half-years running without a certificate; but at the end of that time, if they have not passed the examination, they must be dismissed.

Those who at the university have taken, after examination, the degree of doctor, and have published the Latin dissertation required for that degree, are excused from the written part of the schoolmaster's examination. When this examination was first instituted, both Schleiermacher and Wolf, being then members of the Education section, declared themselves strongly against allowing any university title to exempt candidates for the höhere Schulamt from going through the special examination. Probably they were right, for the

seriousness of the degree examination, an value of the degree, is not the same in German university. They were overruled, ever; but little or no inconvenience does i arise from the allowance, in this case, of an pollent title; because if a candidate bring degree of doctor from a university whose d are not respected, and if he inspires any sust the patrons who are to nominate him, or the vincial Board which is to confirm him, invit to go through the special examination first if he refuses, or if he cannot pass, his appoint is not proceeded with.

The *Probejahr*, or year of probation, mus general rule, be passed at a gymnasium or a schule, not at a progymnasium or a higher Bu School. In this way the schoolmaster of the class of secondary schools is a man who has a the working and standards of the higher. The bationer is commonly unpaid, but if he is us the place of an assistant master, the school so uses must pay him. The schools are, how expressly directed not to treat the probation a means of relieving an overtasked staff.

give him an opportunity of learning, in the best way for himself, the practice of his business, and to let him therefore work with several different classes in the course of his year. At the end of his year he receives a certificate from the school authorities as to the efficiency which he shows.

The time passed in a Normal Seminary counts instead of the *Probejahr*; but these seminaries have not in Prussia, any of them, the importance of the Ecole Normale in France. There is not the same need of the institution in Germany as in France, and no German professor is obliged to pass through it. The Ecole Normale is of much more use in giving its student the thorough possession of what he knows and the power of independent application of it than in teaching him to teach; and these more valuable functions of a Normal School are performed in Germany by the Gymnasien and the universities, to an extent to which the lycées and faculties in France by no means perform them. Hence in France the need and utility of the Ecole Normale. The normal seminaries in Germany are connected with the different universities, and designed, in general, to

give the future schoolmaster a more firm thorough grasp on the matters he studies the The pædagogical seminaries have not been important or so fruitful to him as the philological seminaries, where this design has been applie what has hitherto been the grand matter of studies,—Alterthumswissenschaft, the system knowledge of classical antiquity. It was as head of the philological seminary at Halle Wolf gave that impulse to the formation of a l of learned and lay schoolmasters of which Gern has ever since felt the good effects. This semiwas opened in 1787, and Wolf was its director nearly twenty years, till the University of H was closed by Napoleon after the battle of J and Wolf went to Berlin to be a member of Department of Education there. During the la part of Wolf's time at Halle, he was assisted the seminary by Immanuel Bekker. There twelve seminarists, with a small exhibition o thalers (£6) a year each; the exhibition tenable for two years. No one was admitted t exhibition who had not already completed his

year's course in the university, but students f

any of the faculties might attend the seminary lectures. They attended in great numbers, and for the exhibitions themselves there were at the first examination sixty candidates. The seminary lessons were interpretation lessons and disputation lessons, the former being, as the name implies, the interpretation of a given author; the latter being the discussion, between two or more of the seminarists, either of a thesis set long beforehand and treated by them in written exercises, or of a thesis set by Wolf at the moment and then and there treated orally, in Latin, by his pupils. Wolf's great rule in all these lessons was that rule which all masters in the art of teaching have followed, to take as little part as possible in the lesson him-· self; merely to start it, guide it, and sum it up, and to let quite the main part in it be borne by the learners. The more advanced seminarists had some practice in the Latin school of the Orphan House at Halle. The more recent statutes of this philological seminary have set forth in express words, as the object of the institution, the design which Wolf always had in his mind in directing it: the design to form effective electical masters

for the higher schools. Every Prussian univer

has a philological seminary, or group of exl tioners much like that which I have describe Halle, not more than twelve in number, with two years' course following one year's academ study, and Alterthumswissenschaft being the ob pursued. There are generally two profes specially attached to the seminary, one for Gr the other for Latin. Besides the ordinary mem or seminarists, a good number of extraordin members, and a yet much larger number Auscultanten, attend the lessons. The staff of philological seminary at Berlin has this const tion of names, from 1812, when this seminary founded, to the present time:—Boeckh, Buttma Bernhardy, Lachmann, Haupt. The philology seminary of the University of Bonn was foun in 1819, and has had on its staff Professors N Welcker, Ritschl, Otto Jahn. The mouth of student of Alterthumswissenschaft in other count may indeed water when he reads two such list these.

At the University of Bonn there is als Naturning an echaftlichee Seminar founded in 1

on the express ground that qualified teachers of the natural sciences in the secondary schools were so much wanting. Bonn has, too, a historisches Seminar founded in 1861 for the promotion of historical studies, and also to provide good historyteachers for the secondary schools. Dr. Von Sybel, the well-known historian, is at present one of its professors. The Universities of Breslau, Greifswald, Königsberg, have likewise historical seminaries, serving either by statute or in practice the same end, of preparing specially qualified teachers of history for the public schools. Berlin, Königsberg, and Halle have also seminaries either for mathematics, or for mathematics and the natural sciences together; these, too, serve, in their line of study, the same end as the philological and historical seminaries serve in theirs. Berlin has also travelling fellowships of a year's duration, to enable Germans, who are to teach French in the public schools, to study the French language and literature in France itself. Two exhibitions of £45 a year each are attached to the Royal French School in Berlin, with the like object of anabling the future teacher of French to learn

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French practically and thoroughly. These Crown foundations; the Crown, associations, private individuals are all founders of seminar The estimate of none of those which I have not exceeds 1000 thalers (£150) a year. It is ast ishing how much is done in Prussia with supplies of money.

Special pædagogic seminaries (pädagogi

Stettin, and Halle. Of these the assigned busing with their seminarist is "to introduce him to practical requirements of the profession of schemaster;" but this introduction is still to be calculated accompanied by a continuance of his general, the seminal here must have passed the examination profacult docendi, and instead of the Probejahr in a schemanner. Each seminarist has a certain number of hours' practice (six hours a week at Berlin):

secondary school; he is present at the conferent or teachers' meetings, of the school to which he attached, and he lives with one of its older mast.

The Berlin midagogische Seminar was founded.

1787, at first with a single gymnasium (the Friedrich-Werdersche) assigned as its practising school; since 1812 all the gymnasiums for Berlin have served in common for this purpose. There are now ten regular exhibitioners; but the exhibitions here are good, and the estimate for the seminary is much larger than that of any other seminary I have named; it is 2390 thalers a year. Dr. Boeckh was in 1865 the director of this seminary as well as of the philological one; and this joint direction well illustrates the close relation at present, in Germany as elsewhere, of the schoolmaster with philology. At Stettin the seminary has only four regular exhibitioners; they have good exhibitions, lasting for two or three years. This seminary is for the benefit in the first instance of the province of Pomerania, and the seminarists have to engage themselves to take, when their exhibition expires, any mastership the Provincial School Board offers them, and to keep it three years.

It is evident from what I have said that these exhibitions do not exist in sufficient number to provide seminary training for anything like the whole of that large body of teachers which the

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secondary schools of Prussia employ. It is found too that the directors and masters of great scho in large towns, who have a great deal to do a constant claims upon their attention, do not l being saddled with the care of seminarists eit at their homes or in their classes. The sa difficulties tell against their giving to probation in their trial year due supervision. But it is living for a time with an experienced teacher a the making the first start in teaching under eye, that is found to be so especially valua for promising novices. It is proposed therefore instead of founding fresh pædagogic seminaries make arrangements for selecting a certain num of good schoolmasters, who will take charge, payment, of a batch of novices (not more th three) for a two years' probationary course bef launching them independently; and a stipendia or exhibition, such as is given in the seminar is to be bestowed on those probationers wh circumstances require it. It is hoped in this v to provide a preliminary training of two years all the most deserving subjects who go into profession.

At the end of his term of probation the probationer gets his appointment. I have said before that for all appointments to masterships in the secondary schools, the intervention of the State authority is necessary. In schools of Crown patronage the appointment is called Bestallung; in schools not of Crown patronage it is called Vocation; the State can give Instalation, absolute occupation; other patrons can only nominate, and their nominee, if an improper person, is rejected, with reasons assigned, by the State authorities. The Crown, exercising its patronage through the Education Minister, appoints, in all Crown patronage gymnasiums and Realschulen, the director. The Provincial Boards, in the minister's name and by commission from him, appoint the upper masters (Oberlehrer) in these schools, and the rector in all Crown patronage progymnasiums and higher Burgher Schools. The other masters in Crown patronage schools, the Provincial Board appoints by its own authority. The nomination of a director in schools of municipal or private patronage requires the Crown's assent and the minister's confirmation. The nomination of an

Oberlehrer in such schools requires the minis assent and the Provincial Board's confirmation The nomination of other masters in such sch the Provincial Board is empowered to con without the assent of the minister. All directors and masters, whether appointed by State or only confirmed by it, take an Amt or oath of office, by which they swear obedito the Crown. In schools of Crown patron when the minister directs, on special grounds, appointment, promotion, or transference, or master, the Provincial Board must comply.

The minister, however, has in Prussia a less immediate and absolute action upon secondary schools than the minister has in Fra In France the minister can dismiss any function of secondary instruction; in Prussia he can remand him and stop his salary for a month, bu cannot of his own authority dismiss him. Direct and upper masters are under the jurisdiction the Court of Discipline for the Civil Ser

(Disciplinarhof) at Berlin; this court is a jud body, four of its members belonging to Supreme Court of Berlin; and any compl

requiring the dismissal of a director or upper master must be tried before it. From the sentence of this court there is an appeal to the minister; but he is bound to appoint, for hearing the appeal, two referees, one of whom must be a member of the Department of Justice; and their decision is final. Complaints of like gravity against other masters (ordentliche Lehrer) are tried by the Provincial Board, which, like the Court of Discipline, hears counsel and examines witnesses on oath; from the sentence of the Board there is also an appeal to the minister, who appoints in this case one referee only, but the referee, before deciding the appeal, has to take the opinion of the Court of Discipline. Everywhere in Prussia and in all German countries we shall find a disposition to take security against that immediate and arbitrary action of the executive which we remark in France; and though the Germans give effect in a very different way from ours to this innate disposition of the Teutonic race, yet they give such effect to it as to establish a notable difference, —the more manifest the more one examines the institutions of the two countries,—between the

habit and course of administration in Ger and in France.

I cannot but think an Education Minis necessity for modern States, yet I know the the employment of such an agency there inconveniences, and I do not wish to hide of them from the English reader. I have that in France political considerations are i opinion too much suffered to influence the working of the system of public education Prussia the minister is armed with powers issues instructions showing how he inter those powers, which in England would e very great jealousy. He tells the provi authorities that no reproach must attach to private and public life, any more than to knowledge or ability, of a candidate for s employment; he tells them that they are to into consideration the whole previous career, professional as well as professional (das gesa bisherige amtliche und ausseramtliche Verhalte such a candidate; and that schoolmasters sl

be men who will train up their scholars in no of obedience towards the sovereign and the S

I know the use likely to be made, in England, of the admission that a Prussian Education Minister uses language of this kind; and I will be candid enough to make bad worse by saying that the present minister, Dr. von Mühler, is what we should call in England a strong Tory and a strong Evangelical. It is not, indeed, at all likely that in England, with the forces watching and controlling him here, a minister would use language such as I have quoted; and even if it were, I am not at all sure that to have a minister using such language, though it is language which I cordially dislike, is in itself so much more lamentable and baneful a thing than that anarchy and ignorance in education matters under which we contentedly suffer. However, what I wish now to say is, that in spite of this language, the political influence which has such real effect upon the public education of France, has no effect, or next to none, upon that of Prussia. I do not believe that it has more on that of Prussia than it has on that of this country. I took great pains to inform myself on this head. The last few years before 1865 were

a time of great political pressure in Prussi arrived there when this pressure was at its hand I conversed mainly with persons opposed of them bitterly opposed, to the Govern They all told me that the State administrati

the schools and universities was in practice and right; that public opinion would not sur to be governed by political regards, or by an literary and scientific regards; and that p opinion would always, in this particular, strong sympathies among the ministers thems I heard of one director to whom Dr. von M had refused confirmation because his politics, had been very strongly declared, were unaccep This director I had the pleasure of seeing; he me himself, what I heard also from others, his case was an isolated one; and that it caused such strong dissatisfaction, not only a the public, but to the school authorities represent the State in the provinces and cor themselves responsible for the march and effic of secondary instruction, that the minister found himself obliged to appoint him, with

very few months to a Crown natronage scho

greater importance than the municipal school for which he had refused him confirmation. The director added, and this too was confirmed by others, that such an intrusion of political feeling as had prevented his confirmation was in the case of a *Lehrer* or teacher,—either an upper teacher or an ordinary teacher,—absolutely unknown.

The truth is, that when a nation has got the belief in culture which the Prussian nation has got, and when its schools are worthy of this belief, it will not suffer them to be sacrificed to any other interest; and however greatly political considerations may be paramount in other departments of administration, in this they are not. In France neither the national belief in culture nor the schools themselves are sufficiently developed to awaken this enthusiasm; and politics are too strong for the schools, and give them their own bias.

I have spoken several times of the religious instruction as forming part of school work and of examinations. The two legally-established forms of religion in Prussia are the Protestant (evangelisch) and the Catholic. All public schools must be either Protestant, Catholic, or mixed

(Simultananstalten). But the constitution mixed school has not been authoritatively de and though the practice has grown up, espe in Realschulen, of appointing teachers of the confessions indifferently, yet these Simultananstalten).

stalten retain the fundamental character of Chr. schools, and indeed usually follow the rule e that the director and the majority of the ma shall be Catholic or that they shall be Prote In general, the deed of foundation or establ custom determines to what confession a s shall belong. The religious instruction and services follow the confession of the school. ecclesiastical authorities—the consistories for testant schools, the bishops for Catholic scho must concur with the school authorities in appointment of those who give the reli instruction in the schools. The consistories the bishops have likewise the right of inspec by themselves or by their delegates, this instrucand of addressing to the Provincial Boards remarks they may have to make on it. The o arius, or class-master, who has general charge of class as distinguished from the teachers who

the different parts of the instruction in it, is generally, if possible, the religious instructor. In Protestant schools the religious instructor is usually a layman; in Catholic, an ecclesiastic. The public schools are open to scholars of all creeds; in general, one of the two confessions, evangelical or Catholic, greatly preponderates, and the Catholics, in especial, prefer schools of their own confession. But the State holds the balance quite fairly between them; where the scholars of that confession which is not the established confession of the school are in considerable numbers, a special religious instructor is paid out of the school funds to come and give them this religious instruction at the school. Thus in the gymnasium at Bonn, which is Catholic, I heard a lesson on the Epistle to the Galatians (in the Greek) given to the Protestant boys of one of the higher forms by a young Protestant minister of the town, engaged by the gymnasium for that purpose. When the scholars whose confession is in the minority are very few in number, their parents have to provide by private arrangements of their own for their children's religious instruction.

Prussia had, in 1864, 11,289,655 Protes inhabitants, 6,901,023 Catholic inhabitants. had nearly 300,000 inhabitants classed near as evangelisch nor as Catholic, and these principally Jews. In her public higher schout of 66,135 boys, 46,396 were Protestant (egelisch), 14,919 were Catholic. The rest, 4 were Jews.

The wide acceptation which the denominate vangelical takes in the official language of Proprevents a host of difficulties which occur us in England. Under the term evangelisch included Lutherans, Calvinists, and the Unter Church formed on the basis of what is common Lutherans and Calvinists; Baptists also, In pendents, Wesleyans (for there are Wesleyans Prussia) are included by it, and in short, all testants who are Christians, in the commacceptation of that word. The State, however Prussia, not only declares itself Christian Preussische Staat ist ein christlicher, says the Unterchtsverfassung of 1816), but it expressly disclared

the neutral, colourless, formless Christianity of Dutch schools and of our British schools Religionsunterricht darf durchaus nicht in einen allgemeinen Religionsunterricht hinübergespielt werden). So the Protestant schools as well as the Catholic employ a dogmatic religious teaching. In all schools of the evangelical confession Luther's Catechism is used, and all Protestant boys of whatever denomination learn it. Not the slightest objection is made by their parents to this. It is true that Luther's Catechism is perhaps the very happiest part of Lutheranism, and therefore recommends itself for this common adoption, while our Catechism can hardly be said to be the happiest part of Anglicanism.

The various denominations of Protestant Christians are thus harmoniously united in a common religious teaching. But the State, keeping in view the christlichen Grundcharakter of itself and its public schools, refuses to employ any masters who are not either Catholics, or, in the wide sense assigned to the term evangelisch, Protestants. Dissenters who are not Christians, and specially the Lichtfreunde, as they call themselves (they would with us generally go by the name of Unitarians or Socinians), are thus excluded from the office of

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public teacher, and so are Jews. In a cou where the Jews are so many and so able, exclusion makes itself felt. A Jew may a medical or mathematical professorship in Prussian universities, but he may not hold a fessorship of history or philosophy. France all these matters a model of reason and just and as much ahead of Germany as she is England. The religious instruction in her sch is given by ministers of religion, and the Sasks no other instructor any questions about religious persuasion.

Restrictions such as that which I have described are said to be contrary to the provis of the Prussian constitution of 1850. The P sian Parliament has begun to occupy itself them, and it is probable they will not long maintained.

A master on his appointment takes the title ordentliche Lehrer, ordinary master (the title under-master is not used in the Prussian scho or of Oberlehrer, upper-master. The Oberlehrer

so either by post or by nomination. The p

upper part of the school, can only be held by a teacher whose certificate entitles him to give instruction in one of the two highest classes. Oberlehrer by nomination are masters of long standing, who as ordinarii or general class-masters have done good service, and have the title of upper-master given to them in acknowledgment of it; but the title so conferred does not enable them to give instruction in any class for which their certificate does not qualify them. regulations direct that there shall be not more than three Oberlehrer, exclusive of the director, for every seven ordentliche Lehrer; but in schools with a larger staff of ordentliche Lehrer than this, the proportion of Oberlehrer to ordentliche Lehrer may become much larger. The minister confers the title of professor upon masters distinguished by their attainments and practical success. The directors rank as full professors of the universities, the masters with the title of professor rank as assistant professors of the universities. It should be said that in Germany the title of professor confers on its holder a fixed rank, as a few official titles do here in England. The director is more

like one of our head-masters than he is like French proviseur, but he does not, like our he masters, give the whole of the instruction, or exthe whole of the classical instruction, to the he class. Often he is not its ordinarius. He, leads to the masters, cannot give any part of the instruction for which he has not at some time proved qualification. In general he has some spectranch in which he is distinguished, and in the branch he gives lessons in prima, and usually other classes too; governing also, as his natimplies, the whole movement of the school, appearing, much oftener than our head-mast in every class of it.

Formerly few masterships had fixed income assigned to them, but it has more and me become a rule of administration in Prussia give to all directors and teachers fixed income and to do away with their sharing the school for Neither the proceeds of these, nor the proceeds foundations, are in any case abandoned to school staff, to do what they like with. On school estimates which I have described,

or from school fees; the surplus of receipts over salaries and other school expenses is funded, and becomes available for enlarging or improving the school. There are few large endowments; in one or two cases, as at Schulpforta, the endowment is allowed to create for the director and the teachers a position above the average, and at Berlin, where the proceeds of the school fees are very great, the masters of the public schools have also a position above the average; but all this is kept within strict regulation, and is settled, as I have said, by administrative boards of public composition, or under public supervision, and is not left to the disposition of the school staff itself. Schulpforta has a yearly income of more than £8000, but of this sum less than £2000 goes in salaries to the rector and masters. The yearly sum funded, after all the expenses of this noble foundation are paid, is not much smaller than the sum spent in salaries.

By a *Normaletat*, or normal estimate, there is fixed for the staff of State gymnasiums the following scale of payments, which is above rather than below the average scale in *Realschulen*, or in any

kind of secondary school not of State patrona The scale has three classes: the first class

for nine places in Prussia, exclusive of Berlin a Schulpforta, which stand on an exceptional footi of their own; the second class is for thirty-fo places; the third class for fifty-eight. Of cou the nine places in the first class, being the princip towns in Prussia except the capital, have far mo than nine gymnasiums. In all the State gymn siums of these nine places, the scale of salaries for the director, £270 a year; for the maste according to their post and their length of star ing, from £90 a year to £195. In the thirty-fo places of the second class, the scale is, for director, £240 a year; for the masters, fro £82:10s. to £172:10s. In the fifty-eight place of the third, for a director £195; for the maste from £75 to £150. The salaries thus fixed a meant to represent the whole emoluments of t post; when a house is attached to a post, t rule is that a deduction of 10 per cent sh be made from the salary to balance the ga by the house. In some places there are spec endowments for augmenting masters' salarie thus the Streitsche Stiftung gives £455 a year to augment the masters' salaries at the Greyfriars gymnasium in Berlin; but nowhere probably in Prussia does a school salary reach £350 a year, and the rector of Schulpforta, whose post is perhaps the most desirable school post in the Prussian dominions, has, I understand, about £300 a year, and a house. To hold another employment (Nebenamt) along with his school post is not absolutely forbidden to the public teacher; thus Dr. Schopen, the excellent Latin scholar at the head of the Bonn gymnasium, is at the same time professor in the philosophical faculty of the university there; but the Nebenamt must not interfere with his school duty, and the supervising authorities take good care that it shall not. So far as it does not interfere with his school duty, the public teacher may give private tuition, and in this manner increase his income; but to give private tuition for fee to the pupils of his own form in the public school, he needs the director's consent. Even when every possible addition to it has been allowed for, the salary of a Prussian schoolmaster will appear to English eyes very low.

The whole scale of incomes in Prussia is, h ever, much lower than with us, and the habit the nation are frugal and simple. The rate schoolmasters' salaries was raised after 1815, has been raised again since; it is not exception low as compared with the rates of incomes Germany generally. The rector of Schulpf with his £300 a year and a house, has in all country round him—where there is great w doing and comfort—few people more comforta off than himself; he can do all he wants to and all that anybody about him does, and thi wealth. The schoolmasters of the higher sch enjoy, too, great consideration; and considerat in a country not corrupted has a value as v money. As a class, the Prussian scho masters are not, so far as I could find out, frett or discontented; they seem to give themsel heartily to their work, and to take pride a pleasure in it.

What I have yet to say about Prussian school their scholars, and their teachers, may perhaps best said in connection with two or three of the institutions, which I visited. In this manner

shall have an opportunity of rendering, by the help of particular illustrations, general results and statements more interesting to the English reader, and more intelligible to him.

CHAPTER VI.

THE PRUSSIAN SYSTEM SEEN IN OPERATIO IN PARTICULAR SCHOOLS.

The Berlin Schools—The Friedrich-Wilhelms Gymnasiu History—Its Confessional Character, Teachers, and C—Its Classes—Its Lessons—School-Books—The Gr Gymnasium—Its History and Endowment—Day S and Boarders in German Schools—The Joachimst Gymnasium—Schulpforta—The Studientag at Schu—Games and Gymnastics—The Friedrich-Wilhelm nasium at Cologne—Studies of the Gymnasium and Realschule—Conflict between their Partisans.

BERLIN has four royal gymnasiums, one was Realschule annexed; four municipal gymnasione with a Realschule annexed; four other mapal Realschulen, and one higher Burgher sand these are full; there were, in 1863, scholars in them, without counting the chain the Vorschulen or preparatory schools

several of them have as appendages; but the supply of higher schools in Berlin is not sufficient for the demand, and the municipality, which was spending in 1863 more than £40,000 a year on the secondary and primary schools of the city, is about to provide several higher schools more. All through Prussia one hears the same thing: the secondary schools are not enough for the increasing numbers whom the widening desire for a good education (der weiter verbreitete Bildungstrieb) sends into them. The State increases its grants, and those grants are met by increased exertions on the part of the communes, but still there is not room for the scholars who come in, and the rise which has taken place in the rate of school fee has in no degree stopped them. To obtain the State's consent to the formation of a new school with the name and rights of a public secondary school, a commune must satisfy the State authority both that its municipal schools for the poor will not be pinched for the sake of the new establishment, and also that it can provide resources to carry on the new establishment properly, and in conformity with the requirements of the

This is being done in all dire Perhaps the most remarkable of the higher s at Berlin is the Friedrich-Wilhelms Gymn The Greyfriars gymnasium (Gymnasium zum , Kloster) has about the same number of sci but with the Friedrich-Wilhelms Gymnasi connected a Realschule; a Vorschule, or paratory school, common to the gymnasium the Realschule both; and a girls' school, from the then Crown Princess of Prussia who it her name in 1827, the Elisabetschule. were, at the end of 1863, 2200 scholars is whole institution together; 581 in the Gymna 601 in the Realschule, 522 in the prepa school, and 496 in the girls' school. The nasium is remarkable as being the only school in Prussia, except the Realschule of Franck foundation at Halle, where the re from the scholars cover the expenditure of school. The annual expenditure for the nasium, Realschule, preparatory school, and betschule together, is in round figures 6 thalers; the receipts from the scholars' fees

manned france 52 000 thelens The

institution is very small, producing about £400 a year only, so the deficiency is made up by a State grant of about 10,000 thalers; this deficiency, however, arises not in the gymnasium, where the school fees more than cover the expenses, but in the schools allied with it.

The history of this institution is the history of many public schools in Prussia. It owes its origin to the Church, and has then in course of time passed under the superintendence of the State. I have mentioned the establishment by Johann Hecker in 1747 of the first Realschule at Berlin. Hecker was preacher at the Trinity Church in the Friedrichsstadt, and he grouped together several small schools in his parish under the name of a Realschule. The institution throve from the first; in 1748 it had 808 scholars, and 20 years afterwards it had 1267. It was governed by the curators of the Trinity Church and by inspectors of their appointment; and it was supported, having no endowment except a very trifling house-property, by voluntary contributions and by schoolfees. The Latin school, which was one of the grouped schools, grew in importance, and at the

fiftieth anniversary of the institution it re the name of Friedrich-Wilhelms Gymnasium in 1803 was rebuilt, with a grant from the k nearly £10,000 towards the rebuilding. A great reforming epoch of 1809 it passed wit other secondary public schools of Berlin the administration of the Education Departs this change being sanctioned, not only by opinion but by the governing bodies of the se themselves, with the view of giving to these and important metropolitan establishment benefit of a common and intelligent dire The Friedrich-Wilhelms Gymnasium is now, fore, both for interna and externa, under the S Board of the province of Brandenburg, to v as soon as the School Boards were constitute central department transferred its direct c of the public schools.

The gymnasium is by foundation Prote and out of the 600 boys whom I found there, 20 were Catholics and 15 were Jews. The uschools have a joint director and a joint adritation of their affairs. They have altogether

teachers of whom 21 are for the gymnasium

these 21, 11 are Oberlehrer, and of these 11, 6 or 7 have the title of professor. The director is Dr. Ferdinand Ranke, a brother of the historian; he has been nearly twenty-five years director here, and more than forty years in the profession. He and seven of the upper-masters of the gymnasium are lodged in the school buildings, which are very plain; but in the school-court is one of those relics of the past, so far more common in the German schools, as in ours, than in the French,—the inscription on Hecker's original schoolhouse: Scholæ Trinitatis ædes in Dei honorem, regis gaudium, civium salutem, juventutis institutioni dicatæ. There are no boarders; a boarding establishment, which originally formed part of the institution, having been done away with in 1832. The scholars all through the school pay the same fee, 26 thalers a year (£3:18s.) In the Vorschule the fee is the same; in the Realschule it is only two thalers a year lower. In one gymnasium at Berlin the scholars pay four thalers a year more than in the Friedrich-Wilhelms Gymnasium; in all the others they pay one thaler less. There is very considerable variety in the rate of school-fees in Prussia,

the circumstances of the school and locality always taken into account in fixing it. The in the metropolitan schools is of course a comtively high one, low as it seems to us. I schools have a rate rising with the class or

sion; thus in the gymnasium at Wetzlar the in sexta and quinta pay 16 thalers, those in q and tertia pay 10 thalers, those in secunda as prima pay 20 thalers. In some schools the r as low as eight or ten thalers for the lower cl and 14 or 16 thalers for the higher. As an age rate for all the gymnasiums of Prussi thalers (£3) a year would certainly be r above the mark than under it. The rates in Realschulen and the higher Burgher schools d in general range below those of the classical scl Moderate as these present rates appear to us, are much higher than they used to be; ir Friedrich - Wilhelms Gymnasium the school twenty years ago was only 16 thalers in sexta

quinta, and 20 thalers in the other classes. many provincial schools it was astonish low, as low as 2, $2\frac{1}{2}$, and 3 thalers. In a pasium I have already mentioned, the Magdal

Gymnasium at Breslau, there was, in 1824, a uniform fee of 8 thalers, and there is now a uniform fee of 24 thalers.

In the Friedrich-Wilhelms Gymnasium I found that 10 per cent of the 600 scholars had free schooling. The number of free posts, as they are called (Freistellen), varies in different schools; in some it goes up to 25 per cent, but I think 10 per cent may be taken as a fair average. These free posts are given on the ground of need and public claim. There are also a few exhibitions in the Friedrich-Wilhelms Gymnasium; but it will be best to notice the subject of exhibitions when I am speaking of some older and richer establishment.

Of course in the very large schools it is not possible to actually group and teach the scholars in six classes, nor yet is it always possible to observe the rule which enjoins that there shall not be more than forty scholars in either secunda or prima, or more than fifty in any of the other classes. The supply of class-rooms falls short, even more than the supply of teachers. The highest class, however, always remains prima, as in our great schools it always remains the sixth; and in the higher

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follow, when it is necessary, the plan of having upper and lower division (oberprima unterpriand in other classes both this plan and the of having two groups or assemblages (cætus) at same stage of school work, and advancing parts one another.

classes the Germans, as I have already mention

The first lesson I heard was Dr. Ranke's lesson to prima, on the Philoctetes of Sopho He spoke Latin to his class and his class s Latin in answer; this is still a common prain the German schools, though not so commo formerly. The German boys have certainly quired through this practice a surprising commof Latin; Dr. Schopen's lesson at Bonn to prima in extemporaneous translation into Lesson which has a deserved celebrity heard with astonishment; a much wider commof the Latin vocabulary than our boys have,

a more ready management of the language, Germans certainly succeed in acquiring. Or other hand, the best style of the best author

not, to my mind, so well caught in Latin position by their boys as by ours. This is

particularly the case in verse, where their best scholars often show, I cannot but think, not only a want of practical skill (that of course is nothing), but a want of tact for judging what is uncouth and inadmissible, which one would not have expected of people who know the Latin models so well. The same is true, in a less degree, of their prose; the best scholars in the best schools of England or France, if set to write a speech or a character in the style of Cicero or Tacitus, would, I think, in general acquit themselves of the task more happily than the corresponding boys of a German school.

But the feeling which was strongest with me in the Berlin *Philoctetes* lesson was the feeling that one seemed to be back in the sixth form at Rugby again, as I remember it nearly thirty years ago. After the lecture rooms at Oxford, and the French *lycées*, and the Italian *licei*, here was at last a body of pupils once more who had worked at their lessons, had learnt Greek, and were at home in a Greek play. What the Berlin boys knew about the scope of the play, its chief personages, and the governing idea and character of

each, was more than the Rugby boys would known; but the quantity of lines done, the sof doing them, and the extent of scholar

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expected in the boys and found in them, see to me as nearly as possible the same thing Berlin and at Rugby. I thought the same in afternoon when I heard Professor Zumpt (a of the famous Latin scholar) take unterprim Cicero's speech Pro Sex. Roscio Amerino. The had been through the oration during the part of the half-year; they were now going rapidly through it again, translating into fl German without taking the Latin words. master let the boys be the performers, and s as little as possible himself, but every good or performance was noticed. Just the same lessons in Thucydides, Livy, and Horace, who heard at other gymnasiums in Berlin. The less had been well prepared by the pupils, the m made few comments, and only on really worthy matters, or to cite some parallel par which was not likely to have come within pupils' reading; in general, when he spoke it to question, and he questioned closely. I struck with the exact knowledge of the Horatian metres which the *unterprima* boys at Greyfriars showed when questioned on them. I found that the practice was to begin by taking eleven odes as specimens of metre, and carefully studying these before proceeding further. Then they commence the Odes at the beginning and go right through them. The portion of a Latin or Greek author got through at a lesson is about the same as in the corresponding form in one of the best English schools, but either in school or by private study the boys have certainly read more than our boys or the French; it is the general rule that a boy who goes in for the leaving examination has read Homer all through. A large number of the boys, too, seem to have really benefited by the instruction, and to be in the first flight of their class, than with us. But the great superiority of the Germans, and where they show how much further they have gone in Alterthumswissenschaft than we have, is in their far broader notion of treating, even in their schools, the ancient authors as literature, and conceiving the place and significance of an author in his country's literature, and

in that of the world. In this way the studinterest in Greek and Latin becomes much revital, and the hold of these languages upon himuch more likely to be permanent. This is to be against the superior finish and elegance of the of our boys in Latin and Greek composition; a

all, in Latin and Greek verse. Greek verse, inc can scarcely be said to be a school exercise at

Instead of having to write Greek iambics, the in prima at the Friedrich-Wilhelms Gymnas on one of the days when I was there, had ha write a summary of Lessing's essay on the epig The summaries were handed to the professor, then made a boy stand up and give in his words the substance of Lessing's essay, begin at the beginning, the professor commenting asking questions as the boy proceeded. Prese another boy was set on, and in this way they

through the essay. The lesson was as much of the range of my English school experience the lessons on the *Femmes Savantes* of Mowhich I heard, as I have already said, with much interest in the *Ecole Normale* at I

The Berlin lesson, like the Paris one, was very interesting.

In the lower division of tertia (about the middle of the school) I had another opportunity of observing a way, not, I think, in use in England, of practising the boys in Latin. The lesson was Ovid; the boys had had to translate at home a certain portion of Ovid into German, and then to bring their translation with them to school. This they had then, in school, to turn back into Latin, not metrical. After this, boys were called upon one after another, as in England, to say a few lines of Ovid by heart; but then, again, each boy had also to say in German prose the passage he had just recited in Ovid's verse.

In quinta I heard the religious instruction. For boys still so near the primary school stage, religious instruction, as a part of the school lessons, seems to me to be still, as in the primary school, in place, and still useful; in the higher classes of the secondary school, it seems to me, I confess, unprofitable and inappropriate. Anything more futile and useless than the lesson in the Galatians which I heard given to secunda at

Bonn cannot possibly be imagined. In q here at Berlin, it was different; the boys first questioned in Bible narratives from a book; a good text-book and good question then they said Luther's Short Catechism then they repeated hymns. The two or Catholic and Jewish boys belonging to the did not come to this lesson.

The mention of a text-book reminds me to a word about the rule in the Prussian poschools for school-books. The masters choose books, but the approval of the Provincial formust be obtained for their choice; before aping for the first time any new book, the Provincial Board must refer to the Education Minister his Council. When a book has once been app for a gymnasium, it may be used in any gymnasium or progymnasium of the same vince; but approval for a gymnasium does count for a Realschule, and vice versa.

I must in passing observe how greatly intelligent censorship like that of the Prov Boards and the Minister in Prussia, or the Council of Public Instruction in Franchisch

needed for school-books in England. Many as are the absurdities of our state of school anarchy, perhaps none of them is more crying than the book-pest which prevails under it. Every school chooses at its own discretion; many schools make a trade of book-dealing, and therefore it is for their interest to have books which are not used elsewhere, and which the pupil will not bring with him from his last school; so that a boy who has been at three or four English schools has often had to buy a complete new set of schoolbooks for each. The extravagance of this is bad enough; but then, besides, as there exists no intelligent control or selection of them, half at least of our school-books are rubbish, and to the other defects of our school system we may add this, that in no other secondary schools in Europe do the pupils spend so much of their time in learning such utter nonsense as they do in ours.

I have mentioned the Greyfriars gymnasium, where I also heard lessons, and where they were of the same character as at the *Friedrich-Wilhelms Gymnasium*, a character much more like that of the lessons in our best English public schools

than of the lessons in the French *lycées*. history of Greyfriars is this. It occupie site of a Franciscan convent abolished a

Reformation; in 1574 the third part of the vent premises was assigned by the elector, a instance of the town magistracy, for use public school. The magistracy endowed it the elector made it over to them, but win electoral Schulordnung. Here from the ea times of the school there was a convictorium Italian convitto). The robust appetite o sixteenth century for the humanities appear the original plan of work; Greek had th hours a week, Latin ten, logic two, arith two, singing five. In 1655 the school 400 scholars. In the second quarter o eighteenth century the mother-tongue ar literature first appear as part of the course; the German public schools having the start of ours, in this particular, by about years. In 1793 the school got the bene a great endowment which I have already tioned, the Streitsche Stiftung; the capital of

endowment is now £33,000. It is admini

by a Directorium composed, not of Sigismund Streit's descendants, but as follows: the provost of St. Nicholas (parish minister), the director and the pro-rector of the school, a councillor of the Education Department, a merchant or tradesman, and a lawyer. The financial administration of this Directorium is controlled, in the manner I have already described, by the public finance officers of the Regierung or governmental district in which Berlin stands.

Streit's endowment maintains at Greyfriars teachers of the modern languages, of astronomy, and of music, provides a Wohncommunitat (lodging, bedding, fire, and lights) for twelve scholars, and a Freitisch (board) for twenty-four more; and keeps improving the school library (now 20,000 volumes), the observatory, collections, etc. also augments the salaries of the director and a number of the masters. Other benefactions provide the widows of masters who die in office with a sum for their husbands' funeral expenses, and a pension of £45 a year. There is an endowment of nearly £450 a year for exhibitions to be enjoyed at the school, and of £150 a year for

exhibitions at the universities. Every two

is held a school-festival in honour of four and benefactors. The school premises has important enlargement by Crown grants of in 1819 and 1831, and great additions have that time been made to the buildings. I about 550 boys, with a director and twent masters. On an average, twenty-five boys the Abiturientenexamen from this school every Here, too, as at the Friedrich-Wilhelms nasium, the number of free posts is 10 per

school gets a grant of about £100 a year from State and £1000 a year from the city of Ber By original foundation and by endowment

They are provided by the municipality.

school too is Protestant. Hardly any Ca boys are here, but of Jewish boys there seventy or eighty. About a third of the number of the scholars are Auswärtige; boys came from a distance, and cannot, therefore with their parents. The great internats of French lycées are unknown in Germany; Alumnate or Convicte of the German school

properly establishments like college at Etc

Winchester, and are for foundationers; for establishments like the School House and the masters' boarding-houses at Rugby, or Commoners at Winchester, the strict designation would in Germany be Pensionat, Pensionsanstalt, and not Alumnat. The practice of having one's son live at home and go to school for his lessons only, obtains much more widely in Germany than with us; 40,000 of the 66,000 boys in the Prussian higher schools are day scholars. Still this leaves 26,000 who are not; and of these the vast majority live with some respectable family in the place where they go to school. The household with which their son is to board or lodge is designated by the parent, but must, by the school regulations of Prussia, be approved by the director of the boy's school, who holds the householder responsible for the boy's conduct out of school. The family life in North Germany is in general decent, kindly, and God-fearing; and a boy is, I think, much better placed as a boarder in this way than as an interne of a French lycée. Still the school authorities in Prussia are of opinion that the provision of boarding establishments in

immediate connection with the public so needs increasing, and they design to increase

The patron at Greyfriars, for matters the not come within the province of the *Directo* of Streit's charity, is still, as the elector George originally appointed, the city of Berlin municipality. The reader will remember the *interna* of a Prussian gymnasium the intertain of a Provincial Board always subsists.

I must give a word in passing to the Alumnat of Berlin, the Joachimsthalsche Gysium. Here I found 404 scholars; 120 of were collegers (Alumnen), 12 were boarders is establishment (Pensionaire); the rest were the who came for the lessons only (Hospiten). per cent of these have free schooling. The sionaire pay only £24 a year; the Alumne not all of them free of all cost; 25 of them £8:14s. a year; 75 of them pay £4:10s. are 20 places with board, lodging, and instruall entirely free, for 20 proved scholars of highest forms.

The Joachimsthalsche Gymnasium is a foundation, endowed with lands by the electric control of the control of th

Joachim Frederick in 1607. It is Protestant. The school has now an income of over £3000 a year from land, and of over £2000 a year from money in the funds. The Crown is the patron; the property is administered, owing to its connection with the Crown domain, by the Regierung at Potsdam.

This is an interesting school, for the list of its masters contains the names of Buttmann, Schneider, Passow, Zumpt, Krüger, and Bergk. The director is Dr. Kiessling, a son of the editor of Theocritus. Constantly in the rolls of the German schools one is coming upon a well-known name of this kind; on the roll of former teachers at Greyfriars are to be found the names of Heindorf, Spalding, Droysen. Nor are other recollections, as interesting as any school in the world can boast, wanting to the Prussian schools. The Joachimsthal School had a scholar of quarta who, like so many German schoolboys, joined the army in the great uprising against the French in 1813. This boy was wounded at Leipzig, made the campaign of France, was at Waterloo, received the decoration of the Iron Cross, and, finally, with the decoration on his breast, took his place again on his old so bench as a scholar of *quarta*.

But no Alumnat in Prussia, or indeed in

many, can compare with Schulpforta, which l antiquity, its beauty, its wealth, its celebri entitled to vie with the most renowned En schools. The Cistercian abbey of St. M Pforta, dates from 1137. It was secularise 1540; and Duke Maurice of Saxony, in established in its place and endowed with revenues a Protestant school for 100 scholars stands near the Saal, in the pleasant count Prussian Saxony; and the venerable pile of b ings rising among its meadows, hills, and w is worthy of the motto borne on the arms o old abbey: "Hier ist nichts anderes denn d Haus, und hier die Pforte des Himmels." 1 It beautifully restored chapel, regular commemor services, and a host of local usages. A

grace is sung in hall every day before dinner the whole body of scholars. Every scholar has ancient institution his *tutor*, every master

^{1 &}quot;This is none other but the house of God, and this gate (porta, Pforte) of heaven."—Gen. xxviii. 17.

famulus. This is the German school where Latin verse has been most cultivated, and the Musæ Portenses, like those of Eton, have been published.

The property is very large, and considerable Church patronage is attached to it. Up to 1815, when it passed into the possession of Prussia, the old abbey estate had still its feudal privileges, and enjoyed full civil and criminal jurisdiction. The property is now entirely under the superintendence of the School Board of the province of Saxony, which appoints a procurator for it. The revenues of Pforta are from £8000 to £9000 a year.

The great head-master of Schulpforta was Ilgen, whose name every one who has read the Homeric Hymns ought to respect. Ilgen was rector for nearly thirty years, from 1802 to 1831, and his reforms make this period an epoch in the school's history. Few schools can show such a list of old scholars. Grævius, Ernesti, Klopstock, Böttiger, Mitscherlich, Fichte, Dissen, Thiersch, Spitzner, Döderlein, Spohn, were all of them schoolboys here.

There are now about 205 pupils: 180 Alumnen proper, or collegers, 20 boarders (Pensionaire, Extraneer), and four or five half-boarders (Semi-Ex-

advantages of collegers, except board, for a ment of £7:10s. a year; their board they ga master's. The real *Extraneer* board and with a master; they pay to him about £45 a for their board and lodging, and to the s £5:8s. a year for their instruction.

The Alumnen proper have all of them ce

traneer). These half-boarders have, in fact, all

payments to make; those exacted, however, the 140 who hold Freistellen are very tri. There are 30 old Koststellen, or posts with the holders of which pay about £3 a year and 20 new Koststellen, the holders of which £7. As a general rule, a boy is not admitted once to a Freistelle. The right of nominating about half the posts on the foundation be to the Crown, that to the other half to differ municipalities. Of the Crown appointment

certain number is reserved, by convention the Saxon Government when Pforta passed Prussia's possession, for natives of the ducl Saxony. The rest are given, on grounds of p claim, by the Minister of Justice and the I Secretary. No how is admitted till be is ty years old; he must be able to pass for tertia. The school begins with tertia, but it has six forms, because there is an upper and a lower division of each class. There are 77 boys in the two divisions of tertia, 79 in the two of secunda, 49 in the two of prima. For some of the posts several boys are nominated, and the one who passes the best examination gets admitted; but the candidates here, the English reader will observe, must all of them be over twelve years of age. The school is well provided with exhibitions, in general of from £10 to £15 a year in value, to the universities.

There is a noteworthy usage here of making one day in the week a *Studientag*, in which the boy is free from all school lessons that he may pursue his private studies. In the same spirit, in the *Gymnasien* generally, promising boys in *prima* are excused certain of the school lessons, that they may work at matters which specially interest them. Results of this private study are to be produced at the *Abiturientenexamen*, and are taken into account for the leaving certificate. Nothing could better show the freedom of Germany, as compared with France, in treating school matters, than a practice

of this kind, which to the French authorities was appear monstrous. In England the school are ities would have a belief, in general too justified, that hardly any one of our boys has notion of such a thing as systematic private at all.

At Schulpforta they are very proud of

playing-field, which is indeed, with the we hill rising behind it, a pleasant place; bu games of English playing-fields do not gethere: instead of goals or a cricket-ground sees apparatus for gymnastics. The Germa is well known, now cultivate gymnastics in schools with great care. Since 1842, gymn have been made a regular part of the public-scourse; there is a Central-Turnanstalt at B with 18 civilian pupils who are being trexpressly to supply model teachers of gymn for the public schools. The teachers profe

have adapted their exercises with precisic every age, and to all the stages of a boy's grand muscular development. The French are impressed by what seems to them the succestible Germans in this kind of instruction,

certainly in their own lycées they have not at present done nearly so much for it. Nothing, however, will make an ex-schoolboy of one of the great English schools regard the gymnastics of a foreign school without a slight feeling of wonder and compassion, so much more animating and interesting do the games of his remembrance seem to him. This much, however, I will say; if boys have long work-hours, or if they work hard, gymnastics probably do more for their physical health in the comparatively short time allotted to recreation than anything else could. In England the majority of public schoolboys work far less than the foreign schoolboy, and for this majority the English games are delightful; but for the few hard students with us there is in general nothing but the constitutional, and this is not so good as the foreign gymnastics. For little boys, again, I am inclined to think that the carefully taught gymnastics of a foreign school are better than the lounging shiveringly about, which in my time used often at our great schools to be the portion of those who had not yet come to full age for games.

All the schools I have hitherto described are

denominational schools. Before I conclumust describe a mixed (simultan) school, on nearest approach to it to be found. Such a s

is the Friedrich-Wilhelms Gymnasium at Col Cologne, as every one knows, is Catholic; a 1825 it had only one gymnasium, a Catholic In 1865 it had two Catholic gymnasiums, one 382 scholars, the other with 281; it had a Realschule of the first rank, with 601 scholars. sides these schools it had a Protestant gymna with real classes; as we should say, with a mo school forming part of it. This is the Fried Wilhelms Gymnasium. An old Carmelite co which had become the property of the mu pality, was in 1825 made into a public gymna in order to relieve the overcrowding in the Cat gymnasium, and to provide special accommod for the Protestants. In 1862 this school wa the subscriptions of friends, both Catholic and testant, provided with real classes up to second

the two lowest classes (sexta and quinta) common to both classical and real scholars. Therefore, in fact three special classes for scholars; or as we should say a modern scholars.

three classes. There are 356 boys in the classical school, and about 100 in the modern school. Of the boys in the classical school, 125 only are Protestants, though the school is by foundation evangelisch; 215 are Catholics, and 16 are Jews. Nothing could better show how little the "religious difficulty" practically exists in Prussian schools than this abundance of Catholic scholars in a Protestant school, where the director and the majority of the 15 masters are Protestants. The regular religious instruction of the school is, of course, Protestant; but the Catholics being in such numbers, a special religious instructor has been provided for them, as, too, there is a special religious instructor provided for the Protestants in the two Catholic gymnasiums. It will be remembered that where the boys, not of the confession for which the school is founded, are very few in number, the parents have to make private arrangements for their religious instruction, and the school does not provide it. The school fee is from 18 to 22 thalers a year, according to the form a boy is in.

The property of the school brings in less than £200 a year. The State contributes about £900 a

year. School fees produce almost exactly the The municipality gave in the first ins the school premises, and now contributes £50 a year to keep them up. It is a C patronage school, but the externa, or property cerns, of this school, as of all the gymnasium school endowments of Cologne, are manage a local Verwaltungsrath, or council of admin tion. This Verwaltungsrath is thus compose representative of the Provincial School Boar directors of the three gymnasiums, with a la a financier, an administrator, and two citizen Cologne; these last five chosen, on the pres tion of the Common Council, by the Prov School Board. For the Studienfonds, which endowments general for education in Cologno not affected to particular institutions, a Ca ecclesiastic is added to the Verwaltung These Studienfonds are very considerable, pr ing close upon 60,000 thalers a year (£9 The Verwaltungsrath has a staff of seven of office-keepers, etc., and both council and sta paid for their services.

The director was the personage already

tioned, whose nomination to a school 1 the Education minister had refused to confirm, because of the nominee's politics. I had much conversation with him, and he struck me as a very able man. said, and his presence in this Cologne school confirmed it, that the Government found it impossible to treat their school patronage politically, even so far as the directors or head-masters were concerned. The appointment of the professors and teachers, he declared, it never even entered into the Government's head to treat politically. We went through the school admission-book together, that I might see to what class in society the boys chiefly belonged. We took a class in the middle of the school, and went through this boy by boy, both for the classical school and the modern school. As it happened, the social standing of the real scholars was on the whole somewhat the highest, but there was very little difference. There were a few peasants' children, picked boys from the elementary schools in the neighbourhood, but these were all of them bursars. There were a good many sons of Government officials. But the designation I found

¹ The school was the gymnasium at Bielefeld.

attached to by far the greater number of panames was Kaufmann—"trader." I heard s

lessons, and particularly noticed the English in the third class of the modern school. lesson was given by a Swiss, who spoke E very well, and who had been, he told me, a to of modern languages at Uppingham. I th here, as I thought when I heard a French less Bonn, that the boys made a good deal me these modern language lessons in Germany in England; the Swiss master at Cologne this impression of mine was quite right. in France I thought these lessons better do with better methods, better teachers, and thoroughly learned,—than in England. In many they were better than in France. lessons in the natural sciences, on the other which in France seemed to me inferior t mathematical lessons, I thought less succes given in Germany, than even in France. this matter I am a very incompetent judge England, besides, supplied me here with no

dard of comparison, for in the English so when I knew them, the natural sciences we taught at all. The classical work in the Cologne gymnasium was much the same that I had seen in other Prussian gymnasiums, and calls for no particular remark.

Dr. Jäger, the director of the united school,—well placed, therefore, for judging, and, as I have said, an able man,—assured me it was the universal conviction with those competent to form an opinion that the *Realschulen* were not, at present, successful institutions. He declared that the boys in the corresponding forms of the classical school beat the *Realschule* boys in matters which both do alike, such as history, geography, the mother-tongue, and even French, though to French the *Realschule* boys devote so far more time than their comrades of the classical school. The reason for this, Dr. Jäger affirms, is that the classical training strengthens a boy's mind so much.

This is what, as I have already said, the chief school authorities everywhere in France and Germany testify: I quote Dr. Jäger's testimony in particular, because of his ability and because of his double experience. In Switzerland you do not hear the same story, but the regnant Swiss concep-

tion of secondary instruction is, in general, liberal but a commercial one; not culture training of the mind, but what will be of immerpalpable utility in some practical calling, is the chief matter; and this cannot be admitted the true scope of secondary instruction. Even Switzerland, too, there is a talk of introducing into the *Realschule* course, which at preservithout it; so impossible is it to follow absorb the commercial theory of education without finconvenience from it. But I reserve my remonthis question for my conclusion.

CHAPTER VII.

SUPERIOR OR UNIVERSITY INSTRUCTION IN PRUSSIA.

Passage from Secondary to Superior Instruction—Special Schools and Universities-Universities of Prussia-Proportion of University Students to Population - German Universities State Establishments—University Authorities—University Teachers—1. Full Professors—2. Assistant Professors—3. Privatdocenten - Students - Fees - Certificates of Attendance at Lectures—Degrees—The Staatspriifung—Character of the German University System.

THE secondary school has essentially for its object a general liberal culture, whether this culture is chiefly pursued through the group of aptitudes which carry us to the humanities, or through the group of aptitudes which carry us to the study of nature. It is a mistake to make the secondary school a direct professional school, though a boy's aims in life and his future profession will naturally determine, in the absence of an overpow bent, the group of aptitudes he will seek to de It is the function of the special school to give fessional direction to what a boy has learnt a secondary school, at the same time that it is

his knowledge, as far as possible, systematic, velops it into science. It is the function of university to develop into science the knowle boy brings with him from the secondary scho the same time that it directs him towards the fession in which his knowledge may most nat be exercised. Thus, in the university, the ic science is primary, that of the profession secon in the special school, the idea of the profess primary, that of science secondary. Our En special schools have yet to be instituted, an English universities do not perform the funct a university, as that function is above laid Still we have, like Germany, great and famou versities, and those universities are, as in Gern in immediate connection with our chief secon schools. It will be well, therefore, to comple sketch of the Prussian school system by a ske

the university system with which it is co-ord

Prussia had, in 1865, six complete universities, with all the four faculties, of theology, law, medicine, and philosophy; and two incomplete universities, with only the faculties of theology and philosophy. The complete universities were Berlin, Bonn, Breslau, Greifswald, Halle, and Königsberg; the incomplete ones, Münster and Braunsberg. In both of these last the faculty of theology is Catholic.

These eight Prussian universities had, in 1864, 6362 students and 600 professors. But this number does not represent the number of Prussians who come under university instruction, because many Prussians go to German universities out of Prussia, such as Heidelberg, Göttingen, Leipzig, There is very free circulation of the German students through the universities of the fatherland; and to estimate the proportion, in any German State, who come under superior instruction, the fairest way is to take the proportion which the whole number of students in Germany bears to the whole population. For else, while we get for Prussia but about one student to every 2800 inhabitants, we shall get for Baden, and for the three Saxon duchies, Weimar, Coburg, and Altenburg, about one student to every 110 habitants; yet it is not that in these terrimore of the population go to the university the Prussia, but Baden has the University of Heide and the three Saxon duchies have in commo University of Jena, and to these two universtudents from all parts of Germany come. To therefore, the whole of Germany, exclusive of non-German States of Austria, we get about matriculated student for every 2600 of potion; and this proportion is probably pretty next truth for Prussia, and for most of the single S In England the proportion is about one mail lated student to every 5800 of the population

The universities of the several German S differ in many points of detail, but in their system and regulations they are alike. I continue, in speaking of universities, to Prussia in immediate view; but the En reader will understand that what I say of Prussian university system may be applied general to that of all Germany.

The German university is a State estable ment, and is maintained, so far as its own

sources fall short, by the State. A university's own resources are both the property it has and the fees it levies. The two most important of the Prussian universities, Berlin with its 2500 students and Bonn with its 1000, date from this century, and foundations of this century are seldom very rich in property. For the year 1864, the income of the University of Berlin was 196,787 thalers (£29,518); of this sum, the real and funded property of the university produced 161 thalers, fees produced 7557 thalers. The State gave all the rest,—189,069 thalers (about £28,842). And the State which does this is the most frugal and economical State in Europe.

The Minister of Public Instruction appoints the professors of a university, the academical senate having the right of proposing names for his acceptance; and he has also his representative in each university,—the curator,—who acts as plenipotentiary for the State, and whose business it is to see to the observance of the laws and regulations which concern the universities. Thus, for instance, a full professor (Professor ordinarius) is bound by regulation to give through-

out the Semester, or half-year, at least two lectures a week on his subject; if he trie charge fees for them, it would be the curbusiness to interfere. And the university auties cannot make new regulations for the goment of the university without obtaining for the sanction of the minister and of Parlia Still the university authorities practically in Germany just as much as in this country, own university; the real direction of the unsity is in their hands, and not, as in Franthose of the minister.

These university authorities are the followard first comes the rector, or, in cases where sovereign is the titular rector, as at Halle Jena, the pro-rector, who answers to our chancellor; only he is elected for one year instead of four. His electors are the full fessors. The rector or pro-rector is the vehead of the university, and is charged with discipline. Like our vice-chancellor, he has assessor, or judge, who sits with him whe there is a question of inflicting fines, or veheat the same of the control of the pro-rector is the vehicles.

ever one of the parties appearing before h

not a member of the university. The academical senate is also chosen by the full professors, and for one year; its members consisting of the actual rector (or pro-rector), the outgoing rector, and a full professor of each faculty. In some universities all the full professors are members of the academical senate. The rector is president, and the internal affairs of the university are brought before it for its discussion and regulation.

Next come the faculties. The faculties in nearly all German universities are four in number: 1 theology, law, medicine, and philosophy. Philosophy embraces the humanities, and the mathematical and natural sciences. As a university authority, a faculty consists only of its full professors, headed by the dean, whom these professors elect for one year. It is the business of the faculty thus composed to see that the students attend regularly the courses of lectures for which they are entered, to summon defaulters before it, to reprimand them, and to inflict on them, if it think proper, a slight penalty.

¹ In one or two universities there is a separate faculty for political economy; in general this science is comprehended in

The last university authority to be mention is the *quæstor*. He has to collect from the dents the fees for the courses for which have entered themselves, and to pay those to the professors to whom they are due, as deduction being made for the quæstor's sand for the university chest.

And now to take the university, not a administrative but as a teaching body. O university, considered in this capacity, the fo is a very different thing from the limited fa above described. The university faculty, teaching body, comprehends not only all full professors of that faculty, but all its fessors extraordinary, or assistant professors all its Privatdocenten. The dean of facult certains from all the full professors, all the fessors extraordinary, and all the Privatdoo of his faculty, what subject each one of proposes to treat in the coming Semester: th perfect liberty of choice for each lecturer by consent among themselves they so cotheir teaching that the whole field of instru money to their faculty may be completely con Then the dean calls together the full professors, who make the administrative faculty; and the programme of lectures is by them drawn up from the data collected by the dean, and is promulgated by their authority.

All full professors must have the degree of doctor in their faculty. Each of them is named for a special branch of the instruction of his faculty; and in this branch he is bound, as I have said, to give at least two public lectures a week without charging fees. He receives from the State a fixed salary, which is sometimes as much as £350 or even £400 a year; he has also a share in the examination fees, and he has the fees for what lectures he gives besides his public lectures. The regular number of full professors in each university is limited, but the State can always, if it thinks fit, nominate an eminent man as full professor in a faculty, even though the faculty may have its complement of full professors; and the State then pays him the same salary as the other full professors. Both from the consideration which attaches to the post and from its emolument, a full professor's

place is in Germany the prize of the care public instruction, and no schoolmaster's particle can compare with it. At Heidelberg several fessors have, I am told, an income, from salary and fees together, of £1000 a year, one an income of £1500.

The professors extraordinary, or assistant fessors, are also named by the State, but have not in all cases a fixed salary. Their dependence is on fees paid by those who to their lectures. They are in general to from the most distinguished of the *Prodocenten*, and they rise through the post of fessor extraordinary to that of full professor.

Other countries have full professors and fessors extraordinary. France, for instance, her professeurs titulaires, and her professuppléants; but the Privatdocent is peculi Germany, and is the great source of vigour renovation to her superior instruction. Stimes he gives private lessons, like the prututors of our universities; these lessons have title of Privatissima. But this is not his business. His main business is as unlike

sterile business of our private tutors as possible. The Privatdocent is an assistant to the professorate; he is free to use, when the professors do not occupy them, the university lecture-rooms, he gives lectures like the professors, and his lectures count as professors' lectures for those who attend them. His appointment is on this wise. A distinguished student applies to be made Privatdocent in a faculty. He produces certain certificates and performs certain exercises before two delegates named by the faculty, and this is called his Habilitation. If he passes, the faculty names him Privatdocent. The authorisation of the minister is also requisite for him, but this follows his nomination by the faculty as a matter of course. He is then free to lecture on any of the matters proper to his faculty. He is on his probation, he receives no salary whatever, and depends entirely on his lectures; he has, therefore, every motive to exert himself. general, as I have said, the professors and Privatdocenten arrange together to parcel out the field of instruction between them, and one supplements the other's teaching; still a Privatdocent may, if

he likes, lecture on just the same subject professor is lecturing on; there is absolute in this respect. The one precaution taken undue competition is, that a Privatdocent 1 on a professor's subject is not allowed to lower fees than the professor. It does ho the disinterested spirit in which science sued in Germany, that with these tempta competition the relations between the pr and the Privatdocenten are in general ex the distinguished professor encourages th Privatdocent, and the Privatdocent seeks t his teaching serve science, not his own But it is evident how the neighbourhood rising young Privatdocent must tend to professor up to the mark, and hinder hi getting sleepy and lazy. If he gets slee lazy, his lecture-room is deserted. The docent, again, has the standard of emine before his eyes, and everything stimulates come up to it.

In the faculty of philosophy at Bernumber of *Privatdocenten* is almost exact

are 28 full professors and 29 *Privatdocenten*. The professors extraordinary are more numerous than either. They are 33 in number. The whole number of teachers in the University of Berlin is 183. ¹

Now I come to the students. The university course in theology, law, and philosophy takes three years; in medicine it takes four or five. A student in his triennium often visits one or two universities, seldom more. Lachmann (to take an eminent instance) first went for half a year to Leipzig to hear Hermann; then he passed on to Göttingen, where he afterwards got his Habilitation. To become a member of a university, the student has to be entered on the university register (Matrikel), and then on the register of the faculty in which he means to follow lectures; for inscription on the university register the production of the school-leaving certificate (Maturitätszeugniss), of which I have already said so much, is indispensable. You may get leave to

¹ All these numbers relate to the year 1864. For full details respecting the provision of teaching in the University of Berlin, see the Appendix.

attend lectures without being a member university, and without any school certificat such attendance counts nothing for any p for which a university course is by law or rule required. The university entrance about 18s. The matriculating student sign engagement to observe the laws and regulat the university. The penalties for violating are enforced by the rector. These penalti according to the nature of the offence, repri fine; imprisonment for a period not exceedi month in the university carcer; consilium ai or dismissal from the particular univers which the student belongs, but with to enter at another; and finally, Relegat absolute expulsion, notice being sent to the universities, which then may not admit the s expelled.

The lecture fees range from 16s. to £5 for every course which is not a public and grat one. They are somewhat higher at Berlin in most German universities. In the fact medicine they are highest; here they go

five hours a week. A course of the same length in theology or philosophy costs at Berlin about 17s. a Semester. The fees are collected, as I have said, by the university quæstor, and they must be paid in advance. But every professor has the power to admit poor auditors to his lectures without fee, and often he does so. Poor students are also, by a humane arrangement, suffered to attend lectures on credit, and afterwards, when they enter the public service,—which in Prussia means not only what we in England call the public service, but the learned professions as well, —their lecture fees are recovered by a deduction from their salary. Each university has besides, for the benefit of poor scholars, a number of exhibitions ranging from £12 to £60 a year; and it is common to allow the holders of school exhibitions—which are of smaller amount, and range from £6 to £30 a year,—to retain them at the university.

Certificates of having followed certain courses of lectures are required both for the university degree and for the subsequent examination for a public career (Staatsprüfung) which almost every

university student has in view. It is said

the professors whose lectures are very numer attended have difficulty in ascertaining who is and who is not, and that they give the certification with too much laxity. In general, however, certain that a student who has his way to r and who is worth anything, will attend regu the lectures for which he has entered himself paid his money. There are, of course, many ic the proportion of students in a German university who really work I have heard estimated at third; certainly it is larger than in the Er universities. But the pressure put upon the the way of compulsion and university exa ations is much less than with us. The paran university aim in Germany is to encourage a of study and science for their own sakes; the professors, very unlike our college tutor constantly warning their pupils against Brodsti studies pursued with a view to examination The examinations within the universe course itself are far fewer and less impo in Germany than in England. It is Austr country which believes in the things of the as little as we do, which is the great country for university examinations. There they are applied with a mechanical faith much like ours, and come as often as once a month; but the general intellectual life of the Austrian universities is lower. though Vienna and Prague are good medical schools, than that of any other universities of Germany. "Le pays à examens, l'Autriche,"—exclaims an eminent French professor, M. Laboulaye, who has carefully studied the German university system with a view to reforming that of France,— "Le pays à examens, l'Autriche, est précisément celui dans lequel on ne travaille pas;" and every competent authority in Germany will confirm what M. Laboulaye says. I do not say that in countries like Austria and England, where there is so little real love for the things of the mind, examinations may not be a protection from something worse. All I say is that a love for the things of the mind is what we want, and that examinations will never give it.

¹ Although I am no very ardent lover of examinations, I am inclined to think the non-Austrian universities of Germany might with advantage make a somewhat greater use of them.

Each faculty in a German university example of the control of the for degrees in that faculty and confers them. Maturitätszeugniss which the student brings him from school answers to our grade of bac of arts. The degree of licentiate, answeri our degree of master, is only given in the and philosophy, and is not often sought The great faculty degree is the degree of d For this a certificate of university studies oral examination, and a written dissertation required. The dissertation is in Latin or Ge and is usually published. A doctor's degr philosophy costs £17 at Berlin; there are fac and universities in which a doctor's degree as much as £22:10s. A poor student who a brilliant examination has sometimes his c given him without fees. I have already said the degree of doctor is given much more and carelessly in some German universities in others. But in none is the degree examin in itself such as to make it what the d examination is with us—the grand final car the university life. "Der Zweck des Lebe

das Leben selbst." says the German poet

this is certainly true, in Germany, of the university life.

The Staatsprüfung, however, supplies a bracing examination test; but this examination falls outside the sphere of the university itself. As I have again and again begged the English reader to remark, the examination test is never used in Prussia as sufficient in itself; it is only used to make the assurance of a really good education doubly sure; the really good education is regarded as the main assurance, and no one who has not had this may present himself for the Staatsprüfung. The student who leaves a university receives from the rector a certificate mentioning what lectures he has attended, and what the character of his university career has been. With this certificate, and with the leaving certificate of his school, the future civil servant, clergyman, lawyer, or doctor, presents himself before an examining commission (Prüfungscommission) such as I have described in an earlier part of this volume. He is then examined, having three or four days of paper work, and six or eight hours of viva voce. For lawyers and for clergymen there is a double

examination, the second coming three years the first.

Such, sketched in the briefest possible line, is the system of the German univer Lehrfreiheit and Lernfreiheit, liberty for the te

and liberty for the learner; and Wissens science, knowledge systematically pursued prized in and for itself, are the fundamental of that system. The French, with their minis programmes for superior instruction, and ministerial authorisations required for any who wants to give a course of public lectur authorisations which are by no means a mat form,—are naturally most struck with the li of the German universities, and it is in li that they have most need to borrow from To us, ministerial programmes and minis authorisations are unknown; our university sy is a routine, indeed, but it is our want of sci not our want of liberty, which makes it a rou It is in science that we have most need to be from the German universities. The French un

sity has no liberty, and the English universities no science; the German universities have bet

CHAPTER VIII.

GENERAL CONCLUSION. SCHOOL STUDIES.

Probable Issue of the Conflict between Classical and Real Studies

—New Conception of the Aim and Office of Instruction—
The Circle of Knowledge takes in both the Humanities and the Study of Nature—This not enough recognised at present—Tyranny of the Humanists—Tyranny of the Realists—Our present School Course—How to Transform it—Excessive Preponderance of Grammatical Studies, and of Latin and Greek Composition—The Ancient Languages to be more Studied as Literature—And the Modern Languages likewise—Summing up of Conclusions.

In what has been said, two points, above all, suggest matter for reflection: the course of study of foreign schools, and the way in which these schools are established and administered. I begin with the first.

Several times in the foregoing chapters I have touched upon the conflict between the gymnasium and the *Realschule*, between the partisans of the old

The aim and office of instruction, say no people, is to make a man a good citizen, or a Christian or a gentleman; or it is to fit him to on in the world, or it is to enable him to do duty in that state of life to which he is called.

is none of these, and the modern spirit more more discerns it to be none of these. These a

best secondary and indirect aims of instruction; its prime direct aim is to enable a man to know himself and the world. Such knowledge is the only sure basis for action, and this basis it is the true aim and office of instruction to supply. To know himself, a man must know the capabilities and performances of the human spirit; and the value of the humanities, of Alterthumswissenschaft, the science of antiquity, is, that it affords for this purpose an unsurpassed source of light and stimulus. Whoever seeks help for knowing himself from knowing the capabilities and performances of the human spirit will nowhere find a more fruitful object of study than in the achievements of Greece in literature and the arts during the two centuries from the birth of Simonides to the death of Plato. And these two centuries are but the floweringpoint of a long period, during the whole of which the ancient world offers, to the student of the capabilities and performances of the human spirit, lessons of capital importance.

This the humanists have perceived, and the truth of this perception of theirs is the stronghold of their position. It is a vital and formative

knowledge to know the most powerful matations of the human spirit's activity, for knowledge of them greatly feeds and quicker

own activity; and they are very imper known without knowing ancient Greece But it is also a vital and form knowledge to know the world, the laws govern nature, and man as a part of nature. the realists have perceived, and the truth of perception, too, is inexpugnable. Every m born with aptitudes which give him access to and formative knowledge by one of these either by the road of studying man and his or by the road of studying nature and her The business of instruction is to seize and dethese aptitudes. The great and complete which have all the aptitudes for both roa knowledge are rare. But much more mig done on both roads by the same mind, if in tion clearly grasped the idea of the entire s of aptitudes for which it has to provide; of correlation, and of their equipollency, so to

as all leading, if rightly employed, to vital ledge; and if then, having grasped this id

provided for them. The Greek spirit, after splendid hour of creative activity was gone, gave our race another precious lesson, by exhibiting in the career of men like Aristotle and the great students of Alexandria, this idea of the correlation and equal dignity of the most different departments of human knowledge, and by showing the possibility of uniting them in a single mind's education. A man like Eratosthenes is memorable by what he performed, but still more memorable by his commanding range of studies, and by the broad basis of culture out of which his performances grew. As our public instruction gets a clearer view of its own functions, of the relations of the human spirit to knowledge, and of the entire circle of knowledge, it will certainly more learn to awaken in its pupils an interest in that entire circle, and less allow them to remain total strangers to any part of it. Still, the circle is so vast and human faculties are so limited, that it is for the most part through a single aptitude, or group of aptitudes, that each individual will really get his access to intellectual life and vital knowledge; and it is by effectually directing these aptitudes on definite points of the circle, the will really obtain his comprehension of the

Meanwhile, neither our humanists no realists adequately conceive the circle of ledge, and each party is unjust to all that to

its own aptitudes do not carry it. The hum are loath to believe that man has any access to knowledge except by knowing himself, poetry, philosophy, history, which his spir created; the realists, that he has any except by knowing the world,—the ph sciences, the phenomena and laws of natural like so many others who have been brought the old routine, imperfectly as I know lett the work of the human spirit itself,—know no else, and my judgment therefore may fair impeached. But it seems to me that so lo the realists persist in cutting in two the cir knowledge, so long do they leave for pra purposes the better portion to their rivals, a the government of human affairs their rival beat them. And for this reason. The str letters is the study of the operation of human

of human freedom and activity; the stud

nature is the study of the operation of non-human forces, of human limitation and passivity. The contemplation of human force and activity tends naturally to heighten our own force and activity; the contemplation of human limits and passivity tends rather to check it. Therefore the men who have had the humanistic training have played, and yet play, so prominent a part in human affairs, in spite of their prodigious ignorance of the universe; because their training has powerfully fomented the human force in them. And in this way letters are indeed runes, like those magic runes taught by the Valkyrie Brynhild to Sigurd, the Scandinavian Achilles, which put the crown to his endowment and made him invincible.

Still, the humanists themselves suffer so much from the ignorance of physical facts and laws, and from the inadequate conception of nature, and of man as a part of nature,—the conduct of human affairs suffers so much from the same cause,—that the intellectual insufficiency of the humanities, conceived as the one access to vital knowledge, is perhaps at the present moment yet more striking than their power of practical

stimulation; and we may willingly declar the Italians 1 that no part of the circle of ledge is common or unclean, none is to b up at the expense of another. To say the fruit of classics, in the boys who study the at present greater than the fruit of the sciences, to say that the realists have n their matters of instruction so well adap teaching purposes as the humanists have theirs, comes really to no more than this the realists are but newly admitted labour the field of practical instruction, and that the leading humanists, the Wolfs and the manns, have been also schoolmasters, and brought their mind and energy to bear up school-teaching of their own studies, the l in the natural sciences, the Davys and the days, have not. When scientific physics h recognised a place in public instruction as and Greek, they will be as well taught.

^{1 &}quot;Essendo diverse le parti dell'insegnamento, mostri di spregiare le altre, esaltando troppo quell'addetto. Nessun ramo del sapere è meno necessario; le scienze si avvantaggia l'umana società; tutte cospiran

The Abbé Fleury, than whom no man is a better authority, says of the mediæval universities, the parents of our public secondary schools: "Les universités ont eu le malheur de commencer dans un temps où le goût des bonnes études était perdu." They were too late for the influences of the great time of Christian literature and eloquence, the first five centuries after Christ; they were even too late for the influences of the time of Abelard and Saint Bernard. And Fleury adds: "De là (from these universities founded in a time of inferior insight) nous est venu ce cours réglé d'études qui subsiste encore." He wrote this in 1708, but it is in the main still true in 1867. All the historical part of this volume has shown that the great movements of the human spirit have either not got hold of the public schools, or not kept hold of them. What reforms have been made have been patchwork, the work of able men who into certain departments of school study which were dear to them infused reality and life, but who looked little beyond these departments, and did not concern themselves with fully adjusting instruction to the wants of the human mind. There is fore, no intelligent tradition to be set a our public schools; there is only a raising in the way we have seen, and destible superseded as soon as ever that more added of instruction, of which the modern seven now in travail, shall be fully born.

That idea, so far as one can already t its lineaments, will subordinate the matt methods of instruction to the end in vie end of conducting the pupil, as I hav through the means of his special aptitu a knowledge of himself and the world. natural sciences are a necessary instrun this knowledge; letters and Alterthums schaft are a necessary instrument of this ledge. But if school instruction in the sciences has almost to be created, sche struction in letters and Alterthumswisse has almost to be created anew. The prophilological discipline, which in our schools guards the access to Alterthums schaft, brings to mind the philosophy of A

Magnus, the mere introduction to which

logic,—was by itself enough to absorb all a student's time of study. To combine the philological discipline with the matter to which it is ancillary,—with Alterthumswissenschaft itself,—a student must be of the force of Wolf, who used to sit up the whole night with his feet in a tub of cold water and one of his eyes bound up to rest while he read with the other, and who thus managed to get through all the Greek and Latin classics at school, and also Scapula's Lexicon and Faber's Thesaurus; and who at Göttingen would sweep clean out of the library-shelves all the books illustrative of the classic on which Heyne was going to lecture, and finish them in a week. Such students are rare; and nine out of ten, especially in England, where so much time is given to Greek and Latin composition, never get through the philological vestibule at all, never arrive at Alterthumswissenschaft, which is a knowledge of the spirit and power of Greek and Roman antiquity learned from its original works.

But many people have even convinced themselves that the preliminary philological discipline is so extremely valuable as to be an end in itself; and, similarly, that the mather

discipline preliminary to a knowledge of is so extremely valuable as to be an end in It seems to me that those who profess th viction do not enough consider the quan knowledge inviting the human mind, as importance to the human mind of really to it. No preliminary discipline is to be at the risk of keeping minds from getting main matter, a knowledge of themselves a world. Some minds have such a special a for philology, or for pure mathematics, the access to vital knowledge and their genu tellectual life lies in and through those s but for one whose natural access to vital ledge is by these paths, there will be ten natural access to it is through literature sophy, history, or through some one or more natural sciences. No doubt it is indisp to have exact habits of mind, and mathe and grammar are excellent for the promo these habits; and Latin, besides having s a share in so many modern languages, o

grammar which is the best of all gramm

the purpose of this promotion. Here are valid reasons for making every schoolboy learn some Latin and some mathematics, but not for turning the preliminary matter into the principal, and sacrificing every aptitude except that for the science of language or of pure mathematics. A Latin grammar of thirty pages, and the most elementary treatise of arithmetic and of geometry, would amply suffice for the uses of philology and mathematics as a universally imposed preparatory discipline. By keeping within these strict limits, absolute exactness of knowledge,—the habit which is here our professed aim,—might be far better attained than it is at present. But it is well to insist, besides, that all knowledge may and should, when we have got fit teachers for it, be so taught as to promote exact habits of mind; and we are not to take leave of these when we pass beyond our introductory discipline.

But it is sometimes said that only through close philological studies and the close practice of Greek and Latin composition can *Alterthums-wissenschaft* itself, the science of the ancient world, be truly reached. It is said to be only through

these that we get really to know Greek and literature. For all practical purposes th

position is untrue, and its untruth may be tested. Ask a good Greek scholar, in the or English acceptation of that term, who at th time knows a modern literature,—let us s French literature,—well, whether he feels l to have most seized the spirit and power of I literature or of Greek literature. Undoubte has most seized the spirit and power of l literature, simply because he has read so very more of it. But if, instead of reading work work of French literature, he had read only works or parts of works in it, and had giv rest of his time for study to the sedulous p of French composition, and to minutely le the structure and laws of the French lan then he would know the French literature as he knows the Greek; he might write creditable French verses, but he would have the spirit and power of French literature no so much as he has seized them at present. doubt it is well to know French philology li Title / . I to I was Through literature to a

write Italian verse like Arthur Hallam, and to know Italian literature too; just as it is well to know the Greek lexicographers and grammarians as Wolf did, and yet to know, also, Greek literature in its length and breadth. But it needs a very rare student for this: and, as, if an Englishman is to choose between writing Italian sonnets and knowing Italian literature, it is better for him to know Italian literature, so, if he is to choose between writing Greek iambics and knowing Greek literature, it is better for him to know Greek literature. But an immense development of grammatical studies, and an immense use of Latin and Greek composition, take so much of the pupil's time, that in nine cases out of ten he has not any sense at all of Greek and Latin literature as literature, and ends his studies without getting His verbal scholarship and his composition he is pretty sure in after life to drop, and then all his Greek and Latin is lost. Greek and Latin literature, if he had ever caught the notion of them, would have been far more likely to stick by him.

I was myself brought up in the straitest school of Latin and Greek composition, and am certainly

not disposed to be unjust to them. Very they are ignorantly disparaged. Professor R I am told, envies the English schools their verse, and he is no bad judge of what is use: knowing Latin. The close appropriation models, which is necessary for good Lat Greek composition, not only conduces to ac and verbal scholarship; it may beget, besid intimate sense of those models, which mal sharers of their spirit and power; and thi the essence of true Alterthumswissenschaft. I lies the reason for giving boys more of Latir position than of Greek, superior though the literature be to the Latin; but the power Latin classic is in *character*, that of the Gre in beauty. Now, character is capable of taught, learnt, and assimilated; beauty ha and it is for enabling us to learn and catch power of antiquity, that Greek or Latin compo is most to be valued. Who shall say what the turning over and over in their mind masticating, so to speak, in early life as mod their Latin verse, such things as Virgil's

"Disce nuer virtutem ex me verumque laborem".

or Horace's

"Fortuna sævo læta negotio"—

has not had in forming the high spirit of the upper class in France and England, the two countries where Latin verse has most ruled the schools, and the two countries which most have had, or have, a high upper class and a high upper class spirit? All this is no doubt to be considered when we are judging the worth of the old school training.

But, in the first place, dignity and a high spirit is not all, or half all, that is to be got out of Alterthumswissenschaft. What else is to be got out of it,—the love of the things of the mind, the flexibility, the spiritual moderation,—is for our present time and needs still more precious, and our upper class suffers greatly by not having got it. In the second place, though I do not deny that there are persons with such eminent aptitudes for Latin and Greek composition that they may be brought in contact with the spirit and power of Alterthumswissenschaft, and thus with vital knowledge, through them,—as neither do I deny that there are persons with such eminent aptitudes for grammatical and philological studies, that they may

be brought in contact with vital knowledge th

them,—nevertheless, I am convinced that of hundreds whom our present system tries with distinction to bring into contact with Altert wissenschaft through composition and phil almost alone, the immense majority would be far better chance of being brought into vital tact with it through literature, by treating study of Greek and Latin as we treat our Fr or Italian, or German studies. In other v the number of persons with aptitudes for carried to vital knowledge by the literar historical, or philosophical, or artistic sens each of which senses we give a chance by tre Greek and Latin as literature, and not as scholarship,—is infinitely greater than the nu of those whose aptitudes are for compositio philology.1

I cannot help thinking, therefore, that the m

general coincidence of view more conspicuous; Mr. Mill have conducted to this view by independent reflection or

¹ Since the above remarks were in print they have r powerful corroboration from the eminent authority of M in his inaugural address at St. Andrews. The difference conclusions on one or two points from Mr. Mill's only ma

spirit will deprive Latin and Greek composition and verbal scholarship of their present universal and preponderant application in our secondary schools, and will make them, as practised on their present high scale, Privatstudien, as the Germans say, for boys with an eminent aptitude for them. For the mass of boys the Latin and Greek composition will be limited, as we now limit our French, Italian, and German composition, to the exercises of translation auxiliary to acquiring any language soundly; and the verbal scholarship will be limited to learning the elementary grammar and common forms and laws of the language with a thoroughness which cannot be too exact, and which may easily be more exact than that which we now attain with our much more ambitious grammatical studies. A far greater quantity of Latin and Greek literature might, with the time thus saved, be read, and in a far more interesting

observation of the foreign schools and of the movement of ideas on the Continent.

A very interesting lecture from Mr. Farrar has still more recently come to show us this movement of ideas extending itself to the schools of England, and to distinguished teachers in the

manner. With the Latin and Greek classi might be joined, as a part of the literar humanistic course for those whose aptitude this direction, a great deal more of the classic the chief modern languages than we have the with our present system.

We have still to make the mother-tong its literature a part of the school course; nations have done this, and we shall do neither foreign nations nor we have yet learnt how to deal, for school purposes modern foreign languages. The great notice teach them for speaking purposes, with a practical convenience. This notion clearly to what I have called the commercial the education, and not the liberal theory; a faultiness of the commercial theory is we by examining this notion and its fruits Marsh, the well-known author of the His the English Language, who has passed his diplomacy and is himself at once a savan linguist, told me he had been much str remarking how, in general, the accompli of speaking foreign languages tends to str mind, and to make it superficial and averse to going deep in anything. He instanced the young diplomatists of the new school, who, he said, could rattle along in two or three languages, but could do nothing else. Perhaps in old times the young diplomatists could neither do that nor anything else, so in their case there may be now a gain; but there is great truth in Mr. Marsh's remark that the speaking several languages tends to make the thought thin and shallow, and so far from in itself carrying us to vital knowledge, needs a compensating force to prevent its carrying us away from it. But the true aim of schools and instruction is to develop the powers of our mind and to give us access to vital knowledge.

Again: if the speaking of foreign languages is a prime school aim, this aim is clearly best reached by sending a boy to a foreign school. Great numbers of English parents, accordingly, who from their own want of culture are particularly prone to the more obvious theory of education,—the commercial one,—send their boys abroad to be educated. Yet the basis of character and aptitudes proper for living and working in any country is

no doubt best formed by being reared in that try, and passing the ductile and susceptible of boyhood there; and in this case Sole saying applies admirably: "As a bird than dereth from her nest, so is a man that war from his place." That, therefore, can hardly prime school-aim, which to be duly reach quires from the scholar an almost irrep sacrifice. So the learning to speak foreign guages, showy as the accomplishment always and useful as it often is, must be regard a quite secondary and subordinate school Something of it may be naturally got in co tion with learning the languages; and, above the instructor's precept and practice in proation should be sound, not, as in our old v teaching these languages through incomp English masters it too often was, utterly barous and misleading; but all this part is perfected elsewhere, and is not to be looked as true school business. It is as literature as opening fresh roads into knowledge, that modern foreign languages, like the ancient truly school husiness, and far more ought. done with them, on this view of their use, than has ever been done yet.

To sum up, then, the conclusions to which these remarks lead. The ideal of a general, liberal training, is to carry us to a knowledge of ourselves and the world. We are called to this knowledge by special aptitudes which are born with us; the grand thing in teaching is to have faith that some aptitudes of this kind every one has. This one's special aptitudes are for knowing men,—the study of the humanities; that one's special aptitudes are for knowing the world—the study of nature. The circle of knowledge comprehends both, and we should all have some notion, at any rate, of the whole circle of knowledge. The rejection of the humanities by the realists, the rejection of the study of nature by the humanists, are alike ignorant. He whose aptitudes carry him to the study of nature should have some notion of the humanities; he whose aptitudes carry him to the humanities should have some notion of the phenomena and laws of nature. Evidently, therefore, the beginnings of a liberal culture should be the same for both

mother-tongue, the elements of Latin an

chief modern languages, the elements of of arithmetic and geometry, of geograph the knowledge of nature, should be the of the lower classes in all secondary and should be the same for all boys stage. So far, therefore, there is no rea division of schools. But then comes cation, according to the boy's aptitudes a Either the study of the humanities or t of nature is henceforth to be the predo part of his instruction. Evidently there advantages in making one school inclu who follow both these studies. It is economical arrangement; and when the istic and the real studies are in the san there is less likelihood of the social stam the boy following the one of them being from that put on a boy following the Still the bifurcation within one school, tised in France, did not answer. But I t was because the character of the or remained so overwhelmingly humanistic the leave with bedse of tooch one one in much superior to the realist body, and because the claims of the humanities were allowed to pursue a boy so jealously into his real studies. In my opinion, a clever Realschuler, who has gone properly through the general grounding of the lower classes, is likely to develop the greater taste for the humanities the more he is suffered to follow his real studies without let or stint. The ideal place of instruction would be, I think, one where in the upper classes (the instruction in the lower classes having been the same for all scholars) both humanistic and real studies were as judiciously prosecuted, with as good teaching and with as generous a consideration for the main aptitudes of the pupil, as the different branches of humanistic study are now prosecuted in the best German Gymnasien; where an attempt is certainly made, by exempting a pupil from lessons not in the direction of his aptitudes, and by encouraging and guiding him to develop these through *Privatstudien*, to break through that Procrustean routine which after a certain point is the bane of great schools. There should, after a certain point be no cast-iron

course for all scholars, either in humani naturalistic studies. According to his ap the pupil should be suffered to follow prin one branch of either of the two great I study; and, above all, to interchange th occasionally, following, on the line which his own line, such studies as have yet some nection with his own line or, from any whatever, some attraction for him. He can well do this if the *Gymnasium* and the *Rec* are two totally separate schools.

His doing it at all, however, is, it will be only an ideal. True, but it is an ideal who modern spirit is, more and more, casting a realise. To realise it fully, the main thing ful is, first, a clear central conception of one can and should do by instruction. secondly, a body of teachers in all the brane each of the two main lines of study, thor masters of their business, and of whom ever shall be set to teach that branch which thoroughly mastered, and shall not be allotteach any that he has not.

CHAPTER IX.

GENERAL CONCLUSION CONTINUED. SCHOOL ESTABLISHMENT.

England and the Continent—Civil Organisation in Modern States—Civil Organisation Transformed not only in France but also in other Continental States-Not in England-A result of this in English Popular Education-English Secondary and Superior Instruction not touched by the State -Inconveniences of this-The Social Inconvenience-The Intellectual Inconvenience—Their Practical Results— Science and Systematic Knowledge more prized on the Continent than in England-Effect of this on our Application of the Sciences, and on our Schools and Education in General—A better Organisation of Secondary and Superior Instruction a Remedy for our Deficiencies-Public and Private Schools-Necessity for Public Schools-With Public Schools, an Education Minister necessary - A High Council of Education desirable—Functions of such a Council-Provincial School Boards requisite-How to make Public Schools—Defects of our University System—Oxford and Cambridge merely Hauts Lycées-London University merely a Board of Examiners-Insufficient number of

Schools wanted, and a Reorganised University taking Superior Instruction to the Students, and noting these Students to Oxford and Cambridge for it—of Superior Instruction to be formed in different England, and Professors to be organised in Facult ford, Cambridge, and London to remain the only Granting Bodies—Education Minister should happointment of Professors—Probable Co-operations is sting Bodies with the State in organising the Superior Instruction—How, when established, it be employed—Final Conclusion.

I come next to the second point for consider the mode of establishing and administering so I have now on two occasions, first in 188 again in 1865, had to make a close study, spot and for many months together, of one most important branches of the civil organ of the most civilised States of the Continent. Englishmen have had such an experience. convictions with which it leaves me seem a to many Englishmen, it is not that I am differentiated from the rest of my countrym

that I have seen what would certainly give too, if they had seen it with their own ey have, reflections which they never had before one of even mind, and not hardened in routing

prejudice, could observe for so long and from so

near as I observed it, the civil organisation of France, Germany, Italy, Switzerland, Holland, without having the conviction forced upon him that these countries have a civil organisation which has been framed with forethought and design to meet the wants of modern society; while our civil organisation in England still remains what time and chance have made it. The States which we really resemble, in this respect, are Austria and Rome. I remember I had the honour of saying to Cardinal Antonelli, when he asked me what I thought of the Roman schools, that for the first time since I came on the Continent I was reminded of England. I meant, in real truth, that there was the same easy-going and absence of system on all sides, the same powerlessness and indifference of the State, the same independence in single institutions, the same free course for abuses, the same confusion, the same lack of all idea of co-ordering things, as the French say,—that is, of making them work fitly together to a fit end: the same waste of power, therefore, the same extravagance and the come neverty of regult of which the civil organica.

tion of England offers so many instances. States cannot either do without free instituted do without a rationally planned and effection organisation. Unlike in other things, Rome, and England are alike in this, that to organisation of each implies, at the present denial or an ignorance of the right of mercason to rule human affairs. At Rome the is sacrificed in the name of religion; in the in the name of loyalty; in England, in the of liberty. All respectable names; but a them will in the long run save its invoked persists in disregarding the inevitable laws govern the life of modern society.

Every one is accustomed to hear that paid the horrors of her great Revolution price for having a tabula rasa upon which to a new civil organisation. But what one when one goes upon the Continent and I little closely into these things, is, that all the progressive States of the Continent have for the example of France, and have transformant transforming their civil organisation.

two - Comming bone by rinters of the great or

nity which the events of the last fifteen years have given her. Prussia transformed hers from 1807 to 1812, by virtue of the stern lesson which her disasters and humiliation had then read her. Russia is at this moment accomplishing a transformation yet more momentous. The United States of America came into the world, it may be said, with a tabula rasa for a modern civil organisation to be built on, and they have never had any other. What I say is, that everywhere around us in the world, wherever there is life and progress, we find a civil organisation that is modern; and this is in States which have not, like France, gone through a tremendous revolution, as well as in France itself.

Who will deny that England has life and progress? but who will deny also that her course begins to show signs of uncertainty and embarrassment? This is because even an energy like hers cannot exempt her from the obligation of obeying natural laws; and yet she tries to exempt herself from it when she endeavours to meet the requirements of a modern time and of modern society with a civil organisation which is, from the top of it to the bottom, not modern. Trans-

form it she must, unless she means to come to the same sentence as the Church of Sum of the same that thou livest, and art However, on no part of this immense task of formation have I now to touch, except of part which relates to education. But this indeed, is the most important of all; and it part whose happy accomplishment may that of all the rest, instead of being to and difficult, gradual and easy.

About popular education I have here but few words to say. People are at last begin see in what condition this really is amon Obligatory instruction is talked of. But we the capital difficulty in the way of obligatory instruction, or indeed any national systematical instruction, in this country? It is this: the moment the working class of this country this question of instruction really brought to them, their self-respect will make them delike the working classes on the Continent schools, and not schools which the clergyrest the squire, or the mill-owner, calls "my standard the squire, or the mill owner, calls "my standard the squire, or the mill owner, calls "my standard the squire, or t

giving them public schools? It is this: that the public school for the people must rest upon the municipal organisation of the country. In France, Germany, Italy, Switzerland, the public elementary school has, and exists by having, the commune, and the municipal government of the commune, as its foundations, and it could not exist without But we in England have our municipal organisation still to get; the country districts, with us, have at present only the feudal and ecclesiastical organisation of the Middle Ages, or of France before the Revolution. This is what the people who talk so glibly about obligatory instruction, and the Conscience Clause, and our present abundant supply of schools, never think The real preliminary to an effective system of popular education is, in fact, to provide the country with an effective municipal organisation; and here, then, is at the outset an illustration of what I said, that modern societies need a civil organisation which is modern. 1

¹ France had, in 1865, 37,500 communes, and nearly 37,500,000 inhabitants; about one commune, therefore, to every 1000 inhabitants. The mayor of the commune is named by the Crown,

We have nearly all of us reached the that popular education it is the State's duty with. Secondary and superior instruction of us still think should be left to take of themselves. Well, this is what was gen thought, or at any rate practised, in old tin over Europe. I have shown how the taking secondary instruction seriously in dates, in Prussia, from Wilhelm von Humbe 1809; in the same year, a year for Prus trouble and anxious looking forward, he the University of Berlin. In Switzerlan State's effective dealing with all kinds of instruction dates from within the last thirty council, of which the mayor is president, is elected by a suffrage of the commune.

We have in England 655 unions and about 12,000 put our communes, or municipal centres, ought at the rate to be 20,000 in number. Nor is this number, more than is required in order to supply a proper basis national organisation of our elementary schools. A morganisation being once given, the object should be to with the existing elementary schools from their present management, and to reconstitute them on a municipal This is not the place to enter into details as to the management, and the place to effected; I will remark that all reforms which stop short of such a withdrawal is to be effected;

in Italy it dates from 1859. In all these countries the idea of a sound civil organisation of modern society has been found to involve the idea of an organisation of secondary and superior instruction by public authority, by the State.

The English reader will ask: What inconvenience has arisen in England from pursuing the old practice? The investigations of the Schools Enquiry Commission, I feel sure, will have made it clear that we have not a body of 65,000 boys of the middle and upper classes receiving so good an instruction as 65,000 boys of the same classes are receiving in the higher schools of Prussia, or even of France. The English reader will not refuse to believe, though no Royal Commission has yet made enquiries on this point, that we have not a body of 6300 university students in England receiving so good an instruction as the 6300 matriculated students in the Prussian universities, or even as the far more numerous students in the French faculties, are receiving. Neither is the secondary and superior instruction given in England on the whole so good, nor is it given, on the whole in schools of so good a standing Of

course, what good instruction there is, and schools of good standing there are to get it chiefly to the lot of the upper class. It is middle class that the inconvenience, such is, of getting indifferent instruction, or get in schools of indifferent standing, mainly This inconvenience, as it strikes one after attentively the schools of the Continent, h aspects. It has a social aspect, and it intellectual aspect.

The social inconvenience is this. On the tinent, the upper and middle class are be up on one and the same plane. In Engla middle class, as a rule, is brought up on the plane. One hears many discussions as limits between the middle and the upper of England. From an educational point of these limits are perfectly clear. Half-afamous schools, Oxford or Cambridge, the anavy, and those posts in the public service posed to be posts for gentlemen,—these as schools all or any one of which give a trainstamp, a cast of ideas, which make a sort of

ciction of all those who share them and this

ciation is the upper class. Except by one of these modes of access an Englishman does not, unless by some special play of aptitude or of circumstances, become a vital part of this association, for he does not bring with him the cast of ideas in which its bond of union lies. This cast of ideas is naturally for the most part that of the most powerful and prominent part of the association, the aristocracy. The professions furnish the more numerous but the less prominent part; in no country, accordingly, do the professions so naturally and generally share the cast of ideas of the aristocracy as in England. This cast of ideas, judged from its good side, is characterised by a high spirit, by dignity, by a just sense of the greatness of great affairs, all of them governing qualities; and the professions have accordingly long recruited the governing force of the aristocracy, and assisted it to rule. Judged from its bad side, this cast of ideas is characterised by its indisposition and incapacity for science, for systematic knowledge. The professions are on the Continent the stronghold of science and systematic knowledge; in England, from the reason above assigned they are not

They are also in England separate, to a unknown on the Continent, from the comm and industrial class with which in social sta they are naturally on a level. So we have an us the spectacle of a middle class cut in tw way unexampled anywhere else; of a profes class brought up on the first plane, with fir governing qualities, but without the idea of sc while that immense business-class, which coming so important a power in all countri which the future so much depends, and wh the leading schools of other countries fills so a place, is in England brought up on the s plane, cut off from the aristocracy and the fessions, and without governing qualities.

If only, in compensation, it had science tematic knowledge! The stronghold of s should naturally be in a nation's middle who have neither luxury nor bodily toil them from it. But here comes in the intell inconvenience of the bad condition of the mour secondary schools. On the Continent, professions were as aristocratic in their indifferences as they are here, the business.

educated as it is, would at once wrest the lead from them, and would be fit to do so. But here in England, the business class is not only inferior to the professions in the social stamp of its places of training, it is actually inferior to them, maimed and incomplete as their intellectual development is, in its intellectual development. Short as the offspring of our public schools and universities come of the idea of science and systematic knowledge, the offspring of our middle class academies probably come, if that be possible, even shorter. What these academies fail to give in social and governing qualities, they do not make up for in intellectual power.

If this is true, then that our middle class does not yet itself see the defects of its own education, perceives no practical inconvenience to itself from them, and is satisfied with things as they are, is no reason for regarding this state of things without disquietude. "He that wandereth out of the way of understanding shall remain in the congregation of the dead;" sooner or later, in spite of his self-confidence, in spite of his energy, in spite of his capital, he must so remain, by virtue of

nature's laws. But if the English busines can listen to testimonies that in the judgm others, at any rate, its inferior education is

ning to threaten it with practical inconve such testimonies are formidably plentifu diplomatist of great experience, not an E man but much attached to England, who course of the acquisition and the construc the Italian lines of railroad, had been k much in contact with young men of busin all nations, told me that the young Engli of this class was manifestly inferior, both i ners and instruction, to the corresponding men of other countries. That is, he ha brought up, as I say, on a lower plane. A Swiss and Germans aver, if you question t to the benefit they have got from their Real and Polytechnicums, that in every part world their men of business trained in schools are beating the English when the on equal terms as to capital; and that whe

lish capital, as so often happens, is super advantage of the Swiss or the German in t tion tends more and more to balance this ority. M. Duruy, till lately the French Minister of Public Instruction, confirms this averment, not as against England in especial, but generally, by saying that all over the Continent the young North German, or the young Swiss of Zurich or Basle, is seizing, by reason of his better instruction, a confidence and a command in business which the young men of no other nation can dispute with him. This confidence, whether as yet completely justified or not by success, is a force which will go far to ensure its own triumph.

But the idea of science and systematic know-ledge is wanting to our whole instruction alike, and not only to that of our business class. While this idea is getting more and more power upon the Continent, and while its application there is leading to more and considerable results, we in England, having done marvels by the rule of thumb, are still inclined to disbelieve in the paramount importance, in whatever department, of any other. And yet in Germany every one will tell you that the explanation of the late astonishing achievements of Prussia is simply that every one concerned in them had thoroughly learnt his business on the

best plan by which it was possible to tead

him. In nothing do England and the Co at the present moment more strikingly diff in the prominence which is now given to of science there, and the neglect in whi idea still lies here; a neglect so great t hardly even know the use of the word sci its strict sense, and only employ it in a ary and incorrect sense. The English n for which there is much to be said if it w pushed to such an excess,—is, that you do a thing right by doing it, and not by first ing how to do it right and then doing French, who in the extent and solidity instruction are, as a nation, so much beh Germans, are yet in their idea of science in a line with the Germans, and ahead That is because there is in France a cons highly instructed class into whose whole this idea of science has come, and whos influence goes to procure its application have no considerable class of this kind. V probably, a larger reading class than the but reading for amusement not study: of

with books of popular reading that leave the mind as inaccurate, as shallow, and as unscientific as it was before. The French have a much more considerable class than we have which really studies. A good test of this is the description of foreign books which get translated. Now the English reader will, perhaps, be surprised to hear that a German scientific book of any sort,—on philosophy, history, art, religion, etc.,—is much more sure of being translated into French than it is into English. A popular story or a popular religious book is sure enough of being translated into English; there is a public for a translation of that; but in France there is a public, not large certainly, but large enough to take an edition or two, for a translation of works not of this popular character.1 Germany, of course, there is a yet far larger public of such a kind. The very matter of public instruction suggests an illustration on this point, and an illustration at my own expense. It has been

¹ There is nothing like an illustration, so let me name these three standard works, Creuzer's "Symbolik," Preller's "Römische Mythologie," and Von Hammer's "Geschichte des Osmanischen Reichs," of each of which there is a translation in French, and

quite the order of the day here, for som past, to discuss the subject of popular ed This is a subject which can no more be without being treated comparatively, than a can be known without being treated compar When it was under discussion in foreign co these countries procured accounts of w done for popular education elsewhere, whi published, found a public to study them bearing on the general question, and went two or three editions. But I doubt whet hundred people in this country have r Pattison's report, or mine, on the popular of the Continent; simply because the n treating a matter of this kind as a matter of: study hardly occurs to any one in this cour almost every one treats it as a matter which settle by the light of his own personal ex

Our rule of thumb has cost us dear and is probably destined to cost us dea It is only by putting an unfair and ext strain on the wealth and energy of the

and of what he calls his practical good sen

the inconvenience we suffer, even in the lines

where we think ourselves most successful, from our want of systematic instruction and science. I was lately saying to one of the first mathematicians in England, who has been a distinguished senior wrangler at Cambridge and a practical mechanician besides, that in one department at any rate, —that of mechanics and engineering,—we seemed, in spite of the absence of special schools, good instruction, and the idea of science, to get on wonderfully well. "On the contrary," said he, "we get on wonderfully ill. Our engineers have no real scientific instruction, and we let them learn their business at our expense by the rule of thumb; but it is a ruinous system of blunder and plunder. A man without the requisite scientific knowledge undertakes to build a difficult bridge; he builds three which tumble down, and so learns how to build a fourth which stands; but somebody pays for the three failures. In France or Switzerland he would not have been suffered to build his first bridge until he had satisfied competent namana that he know how to build it becourse

abroad they cannot afford our extravagance scientific training of the foreign engineers if fore perfectly right. Take the present of mile of the construction of an English and the cost per mile as it was twent ago; and the comparison will give you a notion of what rule-of-thumb engineering out special schools and without scientific tion, has cost the country."

Our dislike of authority and our disbe

science have combined to make us lead school system, like so many other brand our civil organisation, to take care of it it best could. Under such auspices, our system has very naturally fallen all into come and though properly an intellectual agency done and does nothing to counteract the interest to science which is our great intellectual. The result is, that we have to meet the care modern epoch, in which the action of the wand middle class assumes a preponderation.

portance, and science tells in human affair and more, with a working class not educaand the idea of science absent from the whole course and design of our education.

On popular education I have already touched so far as is proper for my present purpose. Secondary, and superior instruction remain. It is through secondary instruction that the social inconvenience I spoke of is to be remedied. The intellectual inconvenience is to be remedied through superior instruction, at first acting by itself, and then, through the teachers whom it forms and its general influence on society, acting on the secondary schools. I will sketch, guided by the comparative study of education which I have been enabled to make, the organisation of schools which seems to me required for this purpose. My part is simply to say what organisation seems to me to be required; it is for others to judge what organisation seems to them possible, or advisable to be attempted. The times, however, are moving; and what is not advisable to-day, may perhaps be called for to-morrow.

But the English reader will hardly, I think, have accompanied me thus far, without sharing the conclusion that at any rate a public system of schools is indispensable in modern communities.

From the moment you seriously desire to your schools efficient, the question between and private schools is settled. Of public syou can take guarantees, of private school cannot. Guarantees cannot be absolutely of It is possible for a private school, which has no guarantees, to be good; it is possible public school, which has given guarantees bad. But even in England the disbelief in reason is hardly strong enough to make us se contend that a rational being cannot frame known purpose guarantees which give him, rate, more numerous chances of reachin purpose than he would have without them.

If public schools are a necessity, the Education Minister is a necessity. Mere administrative convenience he is, indeed, pensable. But what is yet more important administrative convenience is to have whether the education Minister alone supplies, a centwhich to fix responsibility.

¹ I need hardly point out that at present, with or President, Vice-President, and Committee of Council on tion, we entirely fail to get, for primary instruction

The country at large is not yet educated enough, political considerations too much overbear all others, for a minister with a board of six or seven councillors, like the minister at Berlin, to be left alone to perform such a task as the reconstruction of public education in this country must at first be. A High Council of Education, such as exists in France and Italy, comprising without regard to politics the personages most proper to be heard on questions of public education, a consultative body only, but whose opinion the minister should be obliged to take on all important measures not purely administrative, would be an invaluable aid to an English Education Minister, an invaluable institution in our too political country.

One or two matters which I have already approached or touched in the course of this volume are matters on which it would be the natural function of such a Council to advise. It would be its function to advise on the propriety of subjecting children under a certain age to competitive examination, in order to determine their admission to public foundations. It would

be its function to advise on the employment examination test for the public service; which is security should, as at present, be reli

exclusively, or whether it should not be preby securities for the applicant having prev passed a certain time under training and te of a certain character, and stood certain exa tions in connection with that training. It be its function to advise on the organisat school and university examinations, and adjustment to one another. It would function to advise on the graduation of scho proper stages, from the elementary to the h school; it would be its function to advi school books, and, above all, on studies, and plan of work for schools; a business which have said, is more and more inviting disc and ripening for settlement. We have exc materials in England for such a Council. Pr composed, and properly representing the interests concerned in the questions it has to it would not only have great weight with the ister, but great weight, as an illustrious, u Jelihamatica and non ministerial hadre wit country, and would greatly strengthen the minister's hand for important reforms.

Provincial School Boards, too, we have in this country very good materials for forming, and this institution of Germany is well suited to our habits, supplies a basis for local action, and preserves one from the inconveniences of an over-centralised system like that of France. Eight or ten Provincial School Boards should be formed, not too large, five or six members being the outside number for each Board, and one member being paid. This board would be administrative; it would represent the State in the country, keeping the Education Minister informed of local requirements and of the state of schools in each district; being the direct public organ of communication with the schools, superintending the execution of all public regulations applied to them, visiting them so far as may be necessary, and representing the State by the presence of one of its members at their main annual examinations. An elaborate system of inspection, modelled on that of primary schools, is out of place when applied to higher schools; the Franch school authorities and in it is to me that

they were over-inspected, and no doubt ther evident and solid objections to putting a on the same footing, as regards inspection, an elementary school. The Prussian system far better, which resolves inspection, for I schools, mainly into a concert of the State the school authorities in great examinations effective a way of inspection, in real truth, a be found. What special visits may happen required are best made, as in Prussia, by men of the Provincial Boards, or by councilled the Central Department; and a staff of a inspectors for higher schools is neither required are best made, as in either required are best made, as in Prussia, by men of the Provincial Boards, or by councilled the Central Department; and a staff of a inspectors for higher schools is neither required as a staff of a staf

Where are the English higher schools, is be asked, with which this Minister, this Co and these School Boards are to deal? Guid the experience of every country I have volume I will venture to lay down certain propose which may help to supply an answer to question. Wherever there is a school-endown there is a right of public supervision, a necessary, of a re-settlement of the endown has well a certain there.

school-endowment from the Crown or the State, there is a right to the State of participation in the management of the endowment, and of representation on the body which manages it. These two propositions, which in ten years' time will even in England be admitted on all hands to be indisputable, supply all that is necessary for a public system of education. School endowments will certainly be dealt with ere long, and the extraordinary immunity which, from the peculiar habits and isolation of this country, the corporations or private trustees administering them have hitherto enjoyed, is really a reason for applying the principles of common sense and public policy, when they are at last applied to these matters, the more stringently instead of the less stringently. Endowments enough have merited an absolute withdrawal from their present bad application, and an absolute appropriation by public authority for the purposes of a better application, to furnish the State with means for creating, as a commencement, a certain number of Royal or Public schools, to be under the direct control of the Education

which all the regulations for management, books, studies, methods, and examinations, de by public authority as most expedient, s have force unreservedly. Other schools wou found offering to place themselves under administration, as soon as this administration began to inspire respect and confidence organised rightly, it would immediately in respect and confidence. A body of truly p schools would thus be formed, offering t middle classes places of instruction with securities and with an honourable standing. would these new schools long be in antage with our present chief schools, and follow different line of movement from them. So our present chief schools, like Eton and Wes ster and Christ's Hospital, are royal founda Here the right of the State to have a share i whole administration of the institution, and a in the nomination of the masters, immedia arises. Others, like Winchester, Rugby, and row, are not royal foundations, but all of ther foundation schools, and therefore to all of the best form this supervision can possibly take is that of a participation, as in Germany, by the public authority represented through the Provincial School Boards or through members of the High Council of Education, in their main examinations. On these examinations matriculation at the university, and access to all the higher lines of public employment should be made to depend. The pupils of private schools should be admitted to undergo them. In this way every endowed school in the kingdom would have yearly an all-important examination following a line traced or sanctioned by the most competent authority, the Superior Council of Education; and with a direct or indirect representation of this authority taking part in it. The organisation of studies in our very best schools could not fail to gain by this; in all but the very best, it would be its regeneration. Even in England, where the general opinion would be opposed to requiring, as in Germany, for the appointment of all public schoolmasters the sanction of a public

¹ But there should be a different matriculation examination for each faculty, and, except for the faculties of theology and

authority, there could be no respectable objurged to such a mode of public intervent this; the one bulwark, to repeat Wilhel Humboldt's words, which we can set up at the misuse of their patronage by private the And we should at the same time get the had check put to the cram and bad teaching of schools, by compelling them either to adjust studies to sound and serious examinations cease to impose upon the credulity of ignarents.

The mention of the matriculation examibrings me to superior or university instra This is, in the opinion of the best judge weakest part of our whole educational s and we must not hope to improve effect the secondary school without doing som for the schools above it, with which it h intimate natural connection. The want of idea of science, of systematic knowledge, is have said again and again, the capital wat this moment, of English education and of Elife; it is the university, or the superior s

subject analytical factor this idea. The somis

or the superior school ought to provide facilities, after the general education is finished, for the young man to go on in the line where his special aptitudes lead him, be it that of languages and literature, of mathematics, of the natural sciences, of the application of these sciences, or any other line, and follow the studies of this line systematically under first-rate teaching. Our great universities, Oxford and Cambridge, do next to nothing towards this end. They are, as Signor Matteucci called them, hauts lycées; and though invaluable in their way as places where the youth of the upper class prolong to a very great age, and under some very admirable influences, their school education, and though in this respect to be envied by the youth of the upper class abroad and if possible instituted for their benefit, yet, with their college and tutor system, nay, with their examination and degree system, they are still, in fact, schools, and do not carry education beyond the stage of general and school education. The examination for the degree of bachelor of arts, which we place at the end of our three years' university course, is merely the Abiturientenexamen of Germany the enreuve

du baccalauréat of France, placed in both of countries at the entrance to university

instead of, as with us, at their close. So instruction, university instruction, really when the degree of bachelor (bas chevalier, of low degree) is taken, and the preparate mastership in any line of study, or for ship (fitness to teach it), commences. It mastership or doctorship, Oxford and Cambave, as is well known, either no examinate all, or an examination which is a mere form have consequently no instruction directed to grades; no real university-instruction, there all. A machinery for such instruction the indeed, in their possession; but it is not that they do not practically use it.

The University of London labours unde graver defect as an organ of scientific or sinstruction. It is a mere *collegium*, or be examiners. It gives no instruction at all, examines in the different lines of study, and degrees in them. It has real university-extions, which Oxford and Cambridge hav

and these examinations are conducted

independent board, and not by college tutors. This is excellent; but nevertheless it falls immensely short of what is needed. The idea of a university is, as I have already said, that of an institution not only offering to young men facilities for graduating in that line of study to which their aptitudes direct them, but offering to them, also, facilities for following that line of study systematically, under first-rate instruction. This second function is of incalculable importance; of far greater importance, even, than the first. It is impossible to overvalue the importance to a young man of being brought in contact with a first-rate teacher of his matter of study, and of getting from him a clear notion of what the systematic study of it means. Such instruction is so far from being yet organised in this country, that it even requires a gifted student to feel the want of it; and such a student must go to Paris, or Heidelberg, or Berlin, because England cannot give him what he wants. Some do go; an admirable English mathematician who did not, told me that he should never recover the loss of the two years which after his degree he wested without fit instruction at an English university, when he ought to have been superior instruction, for which the preserversity course in England makes no provis daresay he will recover it, for a man of counts no worthy effort too hard; but who commate the loss to the mental training and interhabits of the country, from an absence,—plete that it needs genius to be sensible of costs genius an effort to repair it,—of all public provision for the scientific study and ing of any branch of knowledge?

England had, in 1865, twenty millinhabitants, and the matriculated stude England numbered then about 3500.

— the Prussia of this volume, — has 18, inhabitants, and 6362 matriculated start as large a proportion population coming under superior instantal England, with her wealth and important barely one-half the proportion of her tion coming, even nominally, under superstruction, that Prussia and France have this comparison by no means gives the massure of her disadventage because as

just shown, Oxford and Cambridge being in reality but hauts lycées, and London University being only a board of examiners, the very majority of even the 3500 students of superior instruction whom England nominally possesses, do not, in fact, come under superior instruction at all. This entire absence of the crowning of the edifice not only tends to give us, as I have said, a want of scientific intellect in all departments, but it tends to weaken and obliterate, in the whole nation, the sense of the value and importance of human knowledge; to vulgarise us, to exaggerate our estimate, naturally excessive, of the importance of material advantages, and to make our teachers, all but the very best of them, pursue their calling in a mere trade spirit, and with an eye to little except these advantages.

Exactly the same effect which in the field of university teaching our want of any real course of superior instruction produces, is produced, in the field of the applied sciences, by our want of special schools like the School of Arts and Trades in Paris, or the Gewerbe-Institut of Berlin, or the Zurich

edifice of instruction which is wanting i cases; the same bad intellectual habits a fective intellectual action, which are in bot fostered by this want. Our Science an Department at South Kensington is a rec periment in this country, and has been a m much obloquy here. I am totally uncon with that department; I am barely acq with Mr. Cole who directs it, and I has the special knowledge requisite for criticis operations. But I am bound to say that where on the Continent I found a strong directed to this department, a strong sens importance and of the excellent effect already produced on our industry, with a tion that in the mere interests of this industrial should be obliged to go on and give to the of a special school greater development. believe that we must have a system of schools; but this is a subject which well d

a separate study, and some one to treat it better qualified for the business than I touch on it here merely as a branch of th which is properly, and in all but special cases, to be given by universities.

To extend this amongst us is the great matter. Considering the wealth and occupations of the middle and upper classes of this country, we ought to have at least 8000 students coming under this instruction. The Education Department, by the leaving examination which I have mentioned,—an examination to be held at the different schools and to represent the present matriculation examination, —should take the admission of university students entirely out of the hands of the colleges, and thus save Oxford and Cambridge from the absolute non-valeurs (to use M. Duruy's term) of which at present, owing to the laches of many of the colleges, they have far too many. The degree examination should be taken out of the hands of the college tutors, and entrusted, for reasons which I will give presently, to a board of examiners named by public authority. Beyond these changes, it is not in Oxford and Cambridge that the great work to be done is to be accomplished. All around me I hear people talking of university reform,

Oxford or Cambridge, and the most liberal of with a year's residence there. If there thing which my foreign experience has I convinced of,—as convinced of as I am actual want of superior instruction,—it is that we must take this instruction to the st and not hope to bring the students to the i tion. We must get out of our heads all no making the mass of students come and resid years, or two years, or one year, or even one at Oxford or Cambridge, which neither sui circumstances nor offer them the instruction want. We must plant faculties in the e ten principal seats of population, and I students follow lectures there from their homes, or with whatever arrangements for living they and their parents choose. It we everything for the great seats of population thus made intellectual centres as well as places of business; for the want of the present, Liverpool and Leeds are mere over provincial towns, while Strasburg and Lyo European cities. Oxford and Cambridge the spread of university instruction, if they placed a number of their professors,—of whom they themselves make little use owing to the college system,—in these new faculties, to be established in London or the provinces, where they might render incalculable service, and, still retaining the title of Oxford or Cambridge professors, unite things, new and old, and help in the happiest manner to inaugurate a truly national system of superior instruction. Oxford and Cambridge can, from the nature of things, be nowadays important schools only in theology, arts, and the mathematical and natural sciences. Owing to their college system, which for certain purposes, as I have said, and for a certain class, works well, they do not really need half their professors in even these three faculties, and could spare half of them for use elsewhere. They are actually bad places for schools in law and medicine, and all their professors in these faculties they might with advantage employ where there would be a better field for their services. All future application of Oxford and Cambridge emoluments to national purposes might, with adwantage to the country and honour to Outand and

Cambridge themselves, be made in this di of endowing chairs for professors and exhi for students in university faculties to be or in the great towns of England. The unive London should be re-cast and should have fa formed in connection with it, in order to give public voice and place to superior instruc the richest capital of the world; and f purpose the strangely devised and ano organisations of King's College and Uni College should be turned to account, and co-co as the French say, with the University of I Contributions from Oxford and Cambridge new appointments, might supply what wa ing to fill the faculties, which in London capital of the country, should, as at Paris or be very strong. London would then really what it has not at present, a university.

It is with our superior instruction as a much else; we have plenty of scattered made but these materials need to be co-ordered made, instead of being useless or getting another's way as at present, to work harmon

to one great degion. This degion should

form centres of superior instruction in at least ten

different parts of England, with first-rate professors to give this instruction. These professors should of course be grouped in faculties, each faculty having its dean. So entirely have Oxford and Cambridge become mere hauts lycées, so entirely has the very idea of a real university been lost by them, that the professors there are not even organised in faculties; and their action is on this account alone, if it were not on other accounts also, perfectly feeble and incoherent. The action of professors grouped in faculties, and concerting, as the professors and Privatdocenten of a faculty concert in Germany, their instruction together, is quite another thing. In a place like London all the five faculties of arts, mathematical and natural sciences, theology, law, and medicine, should of course be represented; but it is by no means necessary that each centre of superior instruction should have all these five faculties. Durham, for instance, ought probably to have, as I think a Royal Commission once proposed, but two faculties,—a faculty of theology, and a faculty of mathematical and natural sciences. The requirements of different localities, and the facilities offer for certain lines, must be taken into a It is evident, for example, that faculties of cine are best placed in very large towns, hospitals and hospital patients are numerous

Neither is it by any means necessary, or expedient, that each centre of faculties have the power of conferring degrees. To tain a uniform standard of examination uniform value for degrees is most importa this is impossible when there are too many examining for degrees and giving them. Go suffers from having too many universities g degrees, and from these degrees bearing unequal value. We have two old and im universities, Oxford and Cambridge; one n important university, London, and we w more degree-granting bodies than these. ferent centres of faculties throughout the should be in connection with one or other universities, according as they may have r professors from them, or may be nearest to the other of them; and each of these thr

versities should have its board of examiner

posed of professors holding chairs in its district, and with the Superior Council of Education represented on each board. Thus composing your examining board substantially of professors, you would avoid the objection urged against the present examinations of the London University, that they are in the air, and that their standard fluctuates: composing it from among the professors of a third part of England, you would avoid the inconveniences of letting the teachers of any set of students have the sole decision of the degrees to be granted to them. All the lesser examinations, such as should at the end of each year be held in order to determine whether the student makes progress and is to be allowed to go on with his course, belong naturally, in each centre, to the professors in that centre.

Such a system as that of which I have thus given the bare outline, can be properly organised only by an Education Minister, with the concert and advice of a Superior Council of Public Instruction, and, if necessary, with the help of a public grant. The intervention of the State becomes

here the body of public opinion educated to discern what is wanted gets smaller that while the importance of organising your

tion well and committing it to first-ra becomes greater than ever. It is not fr love of bureaucracy that men like Wilhe Humboldt, ardent friends of human dign liberty, have had recourse to a department in organising universities; it is because an tion Minister supplies you, for the disch certain critical functions, the agent wl perform them in the greatest blaze of dayli with the keenest sense of responsibility. cation made me formerly a professor, and very grateful to Convocation; but Convocation not a fit body to have the appointment of pro It is far too numerous, and the sense of rebility does not tell upon it strongly enou board is not a fit body to have the appoint professors; men will connive at a job as m of a board who single-handed would neve perpetrated it. Even the Crown, — that Prime Minister,—is not the fit power to ha

annointment of nyefoggong, for the Drime 1

is above all a political functionary, and feels political influences overwhelmingly. An Education Minister, directly representing all the interests of learning and intelligence in this great country, a full mark for their criticism and conscious of his responsibility to them, that is the power to whom to give the appointment of professors, not for his own sake, but for the sake of public education. Even if the appointment of professors at Oxford and Cambridge be left as at present, the appointment of every professor in the new faculties should be vested in the Education Minister, and he should be responsible for it; though the faculties should have the right, as they have abroad, of themselves proposing to him candidates they may think proper.

Putting Oxford and Cambridge out of the question, all other places in England, even London, would have so much to gain by a regular public organisation being given to superior instruction in them, and by their professors acquiring the status and authority of public functionaries, that I cannot doubt that bodies like the Senate of the London University, the Council of London University

College, or the trustees of Owens College, chester, would gladly co-operate with an E Minister in transforming and co-orderi institutions so as to give them a national of and an increased effectiveness. Severa personages in the Senate of the London U are personages who would naturally have in any Superior Council of Public Ins Following the Prussian division of school into externa and interna, trustees might charged with externa, the management of p while interna, the appointment of profes the organisation of faculties, devolved Education department. The great town to be the seats of the new faculties would them gladly charge themselves with pro fit habitation for a public establishment a much to their resources and importance of them would furnish an annual contrib

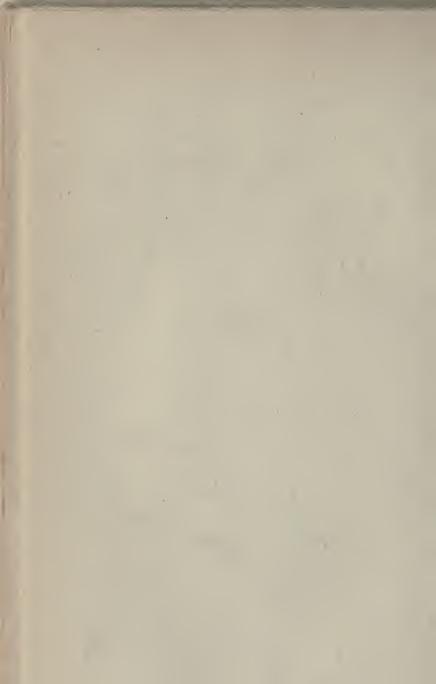
the expenses of the faculties. I believe the be more chance of a brisk competition are chief towns for the honour of being made university faculties, than of their undervathem long without learning to value them. The important thing is to establish them.

Once established, they should be employed as in a country which, relying on its good intentions, its industry, and its wealth, has too long set at nought Solomon's warning: "They that hate instruction love death." The end to have in view is, that every one who presents himself to exercise any calling shall have received for a certain length of time the best instruction preliminary to that calling. This is not, it must be repeated again and again, an absolute security for his exercising the calling well, but it is the best security. It is a thousand times better security than the mere examination-test on which with such ignorant confidence we are now, in cases where we take any security at all, leaning with our whole weight. The Civil Service Examination should be used in strict subordination to this better and ampler security, and with a view of keeping it real. For some classes of post in the public service the having passed the leaving examination of a public school ought to be demanded: for others, the baying gone through the appointed courses and

passed the appointed examinations in faculties or in certain special schools; for or the other. Then, and not till then, m in, as a confirmatory and supplementar rationally regulated civil service examinat minister of religion, to whom, as such, an functions are assigned, no magistrate, no master of a higher school, no lawyer, no should be allowed to exercise his function having come for a certain time under instruction and passed its examination Pharmaceutical Society should be co-order the faculties of medicine, and no druggis be allowed to practise without its instruccertificates. It is with the industrial c the great difficulty of applying superior tion arises; this class so large, wealthy, portant, and which needs superior instru much just because it feels that it needs it Owens College at Manchester with its 100; and London University with its 450

(even if these, who have no appointed far struction, are to be called university stuall) sufficiently show what is well known practically the English industrial class cannot be said to come under superior instruction at all. Their present indifference to it, however, affords no true criterion for judging of their probable willingness to accept it if it were properly organised, brought home to their doors, and made compatible with the necessary conditions of their lives.

Thus I have attempted to sketch in outline the plan of reorganisation for English instruction which is suggested almost irresistibly by a study of public instruction in other European countries, and of the actual condition and prospects of the modern world. The reorganisation proposed will to many people in England appear chimerical. Yet I have a profound conviction that if our country is destined, as I trust it is destined, still to live and prosper, the next quarter of a century will see a reconstruction of English education as entire as that which I have recommended in these remarks, however impossible such a reconstruction may to many now seem.



APPENDIX.

List of the Courses of Lectures by Professors, *Privatdocenten*, and Readers, in the University of Berlin, during the Winter *Semester* of 1865-66.

I. FACULTY OF THEOLOGY.

Full Professors.

- 1. Special Dogmatics (6 hours a week).
- 2. Theology of the New Testament, and Life of Christ (5 hours).
- 3. God's Kingdom till the Coming of Christ (1 h.)
- 4. Introduction to the books of the Old Testament (5 h.)
- 5. Explanation of the Psalms (5 h.)
- 6. Life of Christ, and Critical History of the Gospels (2 h.)
- 7. History of the Church of the Reformation (6 h.)
- 8. Exercises in Catechisation and Preaching (2 h.)
- 9. The same (2 h.)

- 11. The Creeds (1 h.)
- 12. Symbolical Theology, and Introduction Criticism of the New Testament (5

Assistant Professors.

- 13. The book of Judges (1 h.)
- 14. The book of Genesis (5 h.)
- 15. Life and Doctrine of St. Paul (1 h.)
- 16. The Epistle to the Romans (5 h.)
- 17. The Circle of Knowledge and Methodo
- 18. Church History, part 1 (5 h.)
- 19. Archæology and Patristic Study (1 h.)
- 20. Homiletics, theoretical and practical (2
- 21. Biblical History (4 h.)
- 22. Dogmatics (1 h.)
- 23. The book of Isaiah (6 h.)
- 24. Introduction of the books of the Old 7 (5 h.)

Privatdocenten.

- 25. The book of Genesis (5 h.)
- 26. Prophetical Inspiration (2 h.)
- 27. The book of Isaiah (5 h.)
- 28. History of the Israelitish Worship (2 h
- 29. The book of Isaiah (5 h.)
- 30. Chaldaic and Syriac Grammar (2 h.)
- 31. Three of St. Paul's Epistles explained (
- 32. History of the Christian Dogmas (5 h.)

- 34. The Dogmatical passages in the Old and New Testament explained (5 h.)
- 35. Church History, part 1 (5 h.)
- 36. History of the Christian Dogmas (5 h.)

II. FACULTY OF LAW.

Full Professors.

- 1. Psychology of Crimes (1 h.)
- 2. Natural Law, Philosophy of Law (4 h.)
- 3. Criminal Law (4 h.)
- 4. Criminal Procedure (2 h.)
- 5. Law of Nations (2 h.)
- 6. Private German Law, Commercial Law (5 h.)
- 7. Practical Exercises (1 h.)
- 8. The Pandects (1 h.)
- 9. Practical Law of the Pandects (6 h.)
- 10. History of English Law (1 h.)
- 11. Roman Law of Inheritance (2 h.)
- 12. Common and Prussian Civil Process (4 h.)
- 13. German and Prussian Public Law (4 h.)
- 14. Canon Law (4 h.)
- 15. Prussian Law (1 h.)
- 16. Methodology of Law (3 h.)
- 17. Prussian Civil Law (4 h.)
- 18. History of the German Empire and German Law (4 h.)
- 19. History of the Provincial Estates in Germany

- 20. The fourth book of Gaius explained (2 l
- 21. History of Roman Law (5 h.)
- 22. Institutes and Antiquities of Roman Law

Assistant Professors.

- 23. History and actual state of the German eration (3 h.)
- 24. Common Law of Prussia (4 h.)
- 25. French Civil Law (4 h.)
- 26. Catholic and Protestant Law of Marriago
- 27. Prussian Civil Law (4 h.)
- 28. Catholic and Protestant Canon Law (4 h
- 29. Ecclesiastical and Canon Law (4 h.)
- 30. Practice of Ecclesiastical and Canon Law
- 31. Capital Punishment (1 h.)
- 32. Common and Prussian Criminal Law (4
- 33. French Criminal Procedure (2 h.)
- 34. German Public Law, Rights of Sovereign
- 35. Law of Nations (3 h.)
- 36. Practical Exercises on the Criminal Law

Privatdocenten.

- 37. Prussian Law (1 h.)
- 38. History of Roman Law (1 h.)
- 39. Institutes and Antiquities of Roman Lav
- 40. Prussian Civil Law (4 h.)
- 41. Feudal Law (1 h.)

- 43. Commercial Law, Maritime Law, and Law of Exchange (4 h.)
- 44. History of Roman Law in Germany (1 h.)
- 45. History of the Empire, and of German Law (4 h.)
- 46. Prussian Law of Succession (1 h.)
- 47. Practical Exercises on the Jurisprudence of the Pandects (1 h.)
- 48. Institutes and Antiquities of Roman Law (5 h.)
- 49. Relations between Church and State (1 h.)
- 50. Ecclesiastical and Marriage Law (4 h.)
- 51. German Public Law, Private Rights of Sovereigns(2 h.)
- 52. Prussian Public Law (3 h.)
- 53. Practical Exercises on Public and Canon Law (1 h.)
- 54. Private Justice among the Romans (2 h.)
- 55. Roman Law of Succession (3 h.)
- 56. Modern Law of Exchange in Germany (1 h.)
- 57. Private Law and Feudal Law in Germany (4 h.)
- 58. Commercial and Maritime Law in Germany (4 h.)
- 59. The Speculum Saxonicum explained (2 h.)
- 60. History of the Empire, and of German Law (4 h.)
- 61. Interpretation of the Solutions in the Digests (1 h.)
- 62. Methodology of Law (3 h.)

III. FACULTY OF MEDICINE.

Full Professors.

1. On certain Discoveries of the Naturalists (1 h.)

- 3. Practical Exercises in Experimental Phy (1 h.)
- 4. Comparative Physiology with the Mid (1 h.)
- 5. General History of Medicine (1 h.)
- 6. Pathology and Therapeutics (3 h.)
- 7. Clinical Medicine (6 h.)
- 8. Diseases of the Nervous System (5 h.) 1
- 9. Medical Practice (6 h.)
- 10. History of Popular Maladies (1 h.)
- 11. General History of Medicine (3 h.)
- 12. Pathology and Therapeutics (5 h.)
- 13. Hernia (2 h.)
- 14. General and Special Surgery (4 h.)
- Clinical Surgery and Clinical Ophthalmic cal Surgery (5 h.) ¹
- 16. Experiments in Surgery and Anatomy.
- 17. Clinical Surgery and Clinical Ophthalmics
- 18. Midwifery (4 h.)
- 19. Clinical Midwifery (6 h.) ¹
- 20. Practical Exercises in Midwifery (1 h.)
- 21. Excitant Drugs in Medicine (2 h.)
- 22. Materia Medica (6 h.)
- 23. Osteology (1 h.)
- 24. Anatomy of the Brain and Spinal Marro
- 25. General Anatomy (6 h.)
- 26. Structure of the Human body, with the scope (1 h.)

¹ Delivered either at one of the hospitals, or at o

- 27. Practical Exercises in Anatomy (24 h.)
- 28. Methodology of Medicine (2 h.)
- 29. General Pathology and Therapeutics, and their History (4 h.)
- 30. Materia Medica, with Experiments (6 h.)
- 31. Pathological Anatomy (4 h.)
- 32. Practical Course of Anatomy and Pathology, with the Microscope (6 h.)
- 33. Practical Course of Pathological Osteology (6 h.)

Assistant Professors.

- 34. Spectacles (1 h.)
- 35. Ophthalmology (2 h.)
- 36. The same (2 h.)
- 37. Clinical Ophthalmics (6 h.)
- 38. Practical Course of Ophthalmics, with Experiments (1 h.)
- 39. General Surgery (6 h.)
- 40. Surgical Operations on Dead Bodies.
- 41. Diseases of Children (6 h.)
- 42. Errors of Modern Medicine (1 h.)
- 43. Hygiene (1 h.)
- 44. Theory and Practice of Treatment of Diseases of the Eye (4 h.)
- 45. Anatomy of the Organs of Sense (1 h.)
- 46. Osteology and Syndesmology of the Human Body (3 h.)
- 47. Public Hygiene (1 h.)

- 49. Medico-legal Dissection (6 h.)
- 50. The Nerves (2 h.)
- 51. Clinical Study of Diseases of the Nerves (
- 52. Toxicology (2 h.)
- 53. Legal Medicine (3 h.)
- 54. Medico-legal Dissection (6 h.)
- 55. Pathology and Therapeutics (1 h.)
- 56. Auscultation (4 h.)
- Clinical Lectures on Auscultation and Pero (6 h.) ¹
- 58. Wounds (1 h.)
- 59. Fractures and Dislocations (2 h.)
- 60. Application of Bandages (3 h.)

Privatdocenten.

- 61. Diseases of the Teeth and Mouth (2 h.)
- 62. Diseases of the Teeth and their Cure, Experiments (6 h.)
- 63. Surgical and Ophthalmological Experiment
- 64. Drawing up of Prescriptions (2 h.)
- 65. Special Pathology and Therapeutics (6 h.)
- 66. Venereal Diseases (2 h.)
- 67. Cutaneous Diseases (2 h.)
- 68. Clinical Lectures on Diseases of Children (
- 69. Diseases of the Ear (1 h.)
- 70. Moral Responsibility (1 h.)
- 71. Pathology of Venereal Diseases (1 h.)
 - ¹ Delivered either at one of the hospitals, or at one

- 72. Surgery (6 h.)
- 73. Legal Medicine (2 h.)
- 74. Diseases of Women (2 h.)
- 75. Theory and Practice of Midwifery (4 h.)
- 76. Baths and Thermal Waters (2 h.)
- 77. Drawing up of Prescriptions (3 h.)
- 78. Physiological Effects of Gases (3 h.)
- 79. Toxicology (3 h.)
- 80. Going over previous Lectures on Physiology and Osteology (1 h.)
- 81. Theory and Practice of Midwifery (4 h.)
- 82. Operations in Midwifery (1 h.)
- 83. Clinical Study of Cutaneous and Venereal Diseases (3 h.)
- 84. Use of the Laryngoscope (1 h.)
- 85. Diseases of the Heart (1 h.)
- 86. Percussion, Auscultation, etc. (3 h.)
- 87. Auscultation, Percussion, and use of the Laryngoscope (4 h.)
- 88. General and Special Surgery.
- 89. Physiology of Animal Generation (1 h.)
- 90. Physiology of the Nerves and Muscles (4 h.)
- 91. Hernia (1 h.)
- 92. Puncture with Experiments (1 h.)
- 93. Hereditary Vices (1 h.)
- 94. General and Special Surgery (4 h.)
- 95. Auscultation, Percussion, etc. (1 h.)
- 96. Diagnostics (2 h.)
- 97. Use of Electricity in Medicine (1 h.)

- 99. Going over previous Lectures on different of Physiology (1 h.)
- 100. Ophthalmology (3 h.)
- 101. Use of the Ophthalmoscope (1 h.)
- 102. Diagnostics of abnormal states of the Eye
- 103. Theory and Practice of Midwifery (4 h.)
- 104. Operations in Midwifery (1 h.)
- 105. Thermal Waters (2 h.)
- 106. Going over previous Lectures on Phalogy (1 h.)
- 107. Position of the Viscera in the Human Bod
- 108. The Laryngoscope (1 h.)
- 109. The Laryngoscope, Auscultation, Inhaetc. (1 h.)
- 110. Cure of Insanity; the Diseases of the Brai

IV. FACULTY OF PHILOSOPHY.

Full Professors.

- 1. Æschines in Ctesiphontem (2 h.)
- 2. Palæontology (5 h.)
- 3. Greek Antiquities (6 h.)
- 4. Botany (1 h.)
- 5. Special Botany (4 h.)
- 6. Cryptogama, etc. (1 h.)
- 7. Meteorology (1 h.)8. Experimental Physics (4 h.)
- 9. Grecian History (4 h.)
- 10. Modern History, from 1718 to 1815 (5 h.

- 12. Greek Mythology (1 h.)
- 13. National Economy (4 h.)
- 14. Science of Finance (4 h.)
- 15. The Persæ of Æschylus (4 h.)
- 16. The Miles Gloriosus of Plautus (4 h.)
- 17. Politics and Political Economy (1 h.)
- 18. Principles of Political Economy (4 h.)
- 19. Logic and Metaphysics (4 h.)
- 20. Political Economy; Theory of Finance (4 h.)
- 21. Organic Chemistry (1 h.)
- 22. Experimental Chemistry (3 h.)
- 23. The Speeches of Lysias (2 h.)
- 24. The Homeric Poems, and particularly the *Odyssey* (4 h.)
- 25. Surfaces of the Fourth Order (1 h.)
- 26. Analytical Mechanics (4 h.)
- 27. History of Egypt (1 h.)
- 28. Grammar of Hieroglyphics (3 h.)
- 29. Explanation of Egyptian Monuments (1 h.)
- 30. Physical Experiments (1 h.)
- 31. The 41st book of Livy, and onwards (1 h.)
- 32. Latin Inscriptions (4 h.)
- 33. Monuments of the Ancient German Language explained (1 h.)
- 34. History of the Ancient Poetry of Germany (4 h.)
- 35. The Germany of Tacitus (4 h.)
- 36. Analysis of Determinate Numbers (3 h.)
- 37. General and Special Geology (6 h.)
- 38. Zootomy (4 h.)

- 40. Modern History of England and of her ment (4 h.)
- 41. History of Politics (1 h.)
- 42. The Syriac Language (1 h.)
- 43. Grammar of the Semitic Languages (1 h.
- 44. Explanation of the Psalms (5 h.)
- 45. Principles of Arabic Grammar (3 h.)
- 46. Comparison of Persian with Sanscrit (1 l
- 47. Crystallography (1 h.)
- 48. Mineralogy (6 h.)
- 49. The sixth book of Aristotle's Nicomach. E
- 50. Psychology (4 h.)
- 51. History of Philosophy (5 h.)
- 52. Theory of Analytical Functions (6 h.)
- 53. Algebraical Equations (6 h.)

Assistant Professors.

- 54. History of Modern Philosophy (2 h.)
- 55. Logic (4 h.)
- 56. General History of Philosophy in 17th (4 h.)
- 57. Theory of Determinants (2 h.)
- 58. Algebra (4 h.)
- 59. Differential Calculus (4 h.)
- 60. Physical Geography, and History of the terranean (3 h.)
- 61. Simple Drugs examined with the Min (1 h.)
- 62 Rotany of Modical Plants (6 h)

- 63. Pharmacognosy (4 h.)
- 64. Certain Arabic Authors explained (1 h.)
- 65. Arabic Grammar (3 h.)
- 66. The book of Genesis (5 h.)
- 67. Theory of Geographical Phenomena (3 h.)
- 68. Analytical Mechanics (1 h.)
- 69. History of Astronomy (2 h.)
- 70. Theory of the motion of Planets and Comets (4 h.)
- 71. Exercises in Archæology (1 h.)
- 72. History of Greek Sculpture (3 h.)
- 73. National Economy (4 h.)
- 74. The Epidicus of Plautus (2 h.)
- 75. Roman Antiquities (4 h.)
- 76. History of Greek Philosophy (2 h.)
- 77. Æsthetics (2 h.)
- 78. Select Epistles of Cicero (1 h.)
- 79. Philological Exercises (1 h.)
- 80. Greek Mythology (3 h.)
- 81. Exercises in Palæography (1 h.)
- 82. Latin Palæography (1 h.)
- 83. National History of Glumaceous Plants (1 h.)
- 84. Systems of Medical Plants (6 h.)
- 85. Exercises in Anatomy and Physiology (4 h.)
- 86. Ancient Geography (3 h.)
- 87. Botany, Diseases of Plants (4 h.)
- 88. Agronomical Science (1 h.)
- 89. Historical Exercises (1 h.) 90. History of Germany (4 h.)
- 90. History of Germany (4 n.)

- 92. Musical Composition (4 h.)
- 93. Pædagogy (2 h.)
- 94. The Nibelungen (6 h.)
- 95. Exercises in deciphering Manuscripts (1
- 96. Logic; Encyclopædia of Philosophical (4 h.)
- 97. History of Philosophy (4 h.)
- 98. History of the New World (2 h.)
- 99. Geography and Ethnography of Europe
- 100. The Chaldee Language (1 h.)
- 101. History of the Armenians (3 h.)
- 102. General History of Physics since Galileo
- 103. Theory of Electricity (1 h.)
- 104. Physics applied to Mathematics, Acousti
- 105. Chemical Metallurgy (3 h.)

lysis (1 h.)

- 106. Principles of Qualitative and Quantitati
- 107. Experimental Chemistry (6 h.)
- 108. Pharmacy (3 h.)
- 109. Chemical Experiments (8 h. daily)
- 110. The Turkish Language (3 h.)
- 111. Principles of National Psychology (1 h.
- 112. Philosophy of Language; General G (4 h.)
- 113. Character of the Indo-Germanic La
 (4 h.)
- 114. Universal History of the Arts (5 h.)
- 115. The Sacontala of Calidâsa (2 h.)
- 116. Sanscrit Grammar (3 h.)
- 117. Zend or Pâli Grammar (2 h.)

- 118. The Rigveda or the Atharvaveda explained (1 h.)
- 119. Course of Sanscrit, Zend, or Pâli (1 h.)
- 120. The Dramatic Art (1 h.)
- 121. Psychology and Anthropology (3 h.)

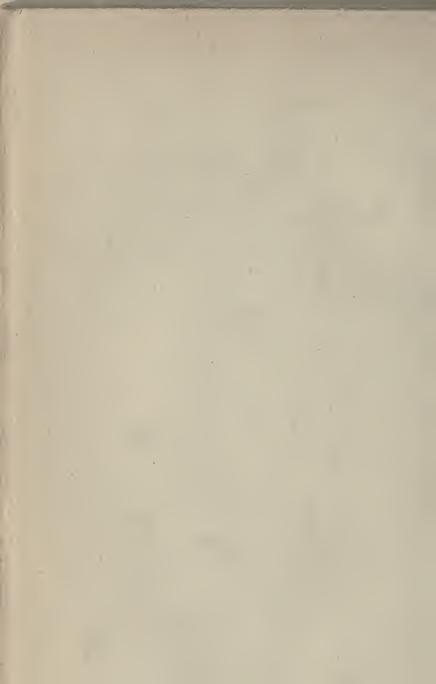
Privatdocenten.

- 122. Experimental Organic Chemistry (4 h.)
- 123. Experiments in Organic Chemistry (6 h.)
- 124. Schleiermacher (1 h.)
- 125. Logic, and Encyclopædia of the Philosophical Sciences (4 h.)
- 126. The Limits between Poetry and Philosophy (1 h.)
- 127. The American Political Economist, Henry Carey.
- 128. Logic and Metaphysics.
- 129. Political Economy.
- 130. History of Modern Civilisation.
- 131. Agronomical Zoology (3 h.)¹
- 132. Entomology (3 h.)
- 133. The Koran (2 h.)
- 134. The Semitic Dialects (1 h.)
- 135. Differential Calculus (4 h.)
- 136. Analytical Geometry (4 h.)
- 137. The Bhagvatgita (1 h.)
- 138. Panini's Sanscrit Grammar (3 h.)
- 139. Hindustani or Pâli Grammar (2 h.)
- 140. Indian Philosophy (1 h.)
- 141. The Satires of Juvenal (2 h.)

¹ This course treats of the animals which do harm to agricul-

- 142. Syntax of the Latin Language (4 h.)
- 143. Lucretius, De Rerum Natura (1 h.)
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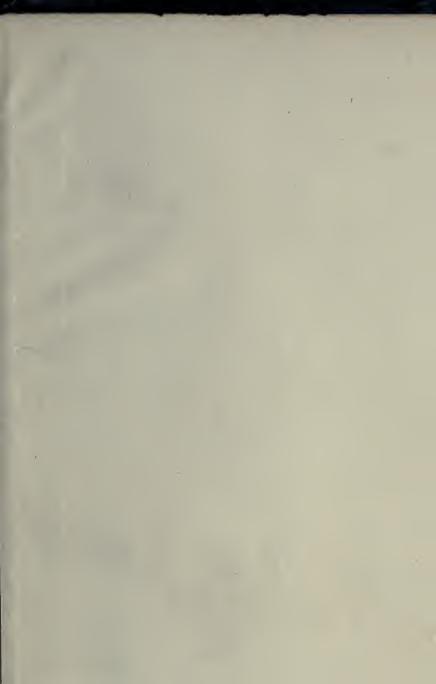
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